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Quality Concerns in Elementary Education



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Directorate of Teacher Education
Research and Training
Chennai 600 006
Tamil Nadu

December 2007

Programme Co-ordinated By
DIET, Pudukkottai



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Directorate of Teacher Education Research and Training
DPI Campus, College Road
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- Chief Advisor** : Dr. P. Perumalsamy
Director
DTERT
Chennai
- Associate Advisors** : Mrs. K. Vasundara Devi
Joint Director (Administration)
DTERT
Chennai
- Mr. K. Devarajan
Joint Director (Schemes)
DTERT
Chennai
- Chief Editors** : Dr. S. Vincent De Paul
Senior Lecturer
DIET, Pudukkottai
- Mr. J. Inbaraj
Assistant Professor
DTERT, Chennai
- Dr. R. Alavandar
Principal I/c
DIET, Vadalur
Cuddalore
- Mr. R. Kuppuraj
Principal
DIET, Pudukkottai

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DIET, Aduthurai

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Senior Lecturer
DIET, Munanjipatti
Thirunelveli District

Mr. S. Vijayakumar
Senior Lecturer
DIET, Aduthurai

Dr. M. Selvam
Senior Lecturer
DIET, Nammakal

Mr. B. Anto Boobalarajan
Senior Lecturer
DIET, Vanaramutti
Thoothugudi Dt.

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Thiru. Thangam Thennarasu
Honourable Minister for School Education
Fort St.George, Secretariat
Chennai 600 009

03-12-2007

The aim of education should be to teach children how to think rather than what to think or load the memory with thoughts of other men and facts. Through Quality Elementary Education, we should prepare the young ones to educate themselves through out their lives and acquire skills to stand on their own legs and defend the rights of their own and those of the motherland. The State government of Tamilnadu is dedicated to the cause of Quality Education. The state has allotted major share of its budget for education. In this context, I would like to appreciate the initiatives of DTERT in improving school effectiveness through various teacher development programmes and seminars. I understand that for the first time DTERT publishes a Book on Quality Concerns in Elementary Education. I congratulate the DTERT, and DIET faculty who have worked meticulously to bring out this wonderful book containing articles written by various authors spread over more than ten states of India.

(Thangam Thennarasu)



Thiru. M. Kutralingam, I.A.S.,
Secretary to Government,
School Education Department
Secretariat,
Chennai 600 009.

03-12-2007

I am immensely pleased to learn that DTERT has published a book on Quality Concerns in Elementary Education. "Education is not filling a pail but lighting a fire". Elementary schools provide children the necessary skills to read, write and explore the world around with utmost confidence. It is in these schools, the foundation of character and values is laid. The State Government is committed to the cause of Quality Elementary Education for All. I congratulate Directorate of Teacher Education, Research and Training for taking this excellent initiative to provide a platform for scholars, teachers, teacher educators, professors and diverse stakeholders to share their valuable experiences and ideas concerning quality improvement in Elementary Education. I wish this endeavor a grand success.


(M. Kutralingam)



R. Kannan, M.A., B.T.,
Director,
Directorate of School Education,
College Road,
Chennai- 600 006.

03-12-2007

I am immensely happy to learn that Directorate of Teacher Education Research and Training publishes a book on "Quality Concerns in Elementary Education". The dissemination of research infact started when I was heading Directorate of Teacher Education, Research and Training as Director. Five Volumes of Action Research abstracts were brought. I am glad to observe that Directorate of Teacher Education, Research and Training has been making best use of X Five Year Plan for Teacher Education. District Institutes of Education and Training are now vibrant and visible, networking with Colleges of Education and Universities. I am told that in the past three years, about 110 Research projects have been undertaken by District Institutes of Education and Training. Directorate of Teacher Education, Research and Training has also done five state level Research Projects. The publication of a book is yet another feather on its cap. I wish the publication of this book a resounding success.


(R. Kannan)



Dr. J. Uma Maheswari, M.A. M.Ed. Ph.D.
Director,
Directorate of Elementary Education,
College Road,
Chennai-6.

03-12-2007

“Education is the panacea for all social evils” Swami Vivekananda

I am happy to learn that the Directorate of Teacher Education, Research and training is publishing a book on “Quality Concerns in Elementary Education” which is need of the hour.

As Tamilnadu’s commitment to the principle of Education for All has been put into practice at the local level, certain elements have emerged as necessary for its success: Schooling should be of high quality and flexible, providing the foundation for life and it should begin with care for the young child.

Under the presidentship of our Hon’ble Chief Minister, a visionary educationist, Tamilnadu, is one of the frontline states working diligently to ensure that all children enjoy their right to high quality education.

Activity Based Learning, a child centred, child friendly methodology has been introduced successfully in the state. Learning experience has been made relevant, effective and enjoyable and we see our children both learning and longing to go to school.

I am sure this book will open new horizons empowering teachers making learning and teaching, joyful and meaningful.

(Dr. J. Uma Maheswari)



Dr. P. Perumalsamy. M.Sc., M.Ed., Ph.D.,
Director,
Directorate of Teacher Education Research & Training,
College Road,
Chennai- 600 006

03-12-2007


The Directorate of Teacher Education, Research and Training, in coordination with DIETs, publishes the present Book “Quality Concerns in Elementary Education” in tune with quality paradigm, focuses on the following objectives;

1. To address the quality issues in elementary education
2. To identify the challenges in achieving quality in elementary education
3. To examine the role of teacher education in quality elementary education.
4. To explore the possibility of harmonizing integration of technology in classrooms.

The collection of papers comprises various themes such as quality assurance innovative practices, educational technology, evaluation, mentorship, teacher education and research, NCF 2005, SSA interventions, special focus groups and meta-cognition.

This book has become truly comprehensive and focused issues on elementary education from national perspectives as it had a good response from more than 10 States. Authors not only from neighbouring States like Kerala, Andhra Pradesh, Maharashtra but also from far away States such as West Bengal, Chatisgarh, Assam, Bihar, Madhya Pradesh Uttarkhand and Orissa have contributed to the excellent book in hand.

I hope this book will help in disseminating and sharing experiences and innovations, empirical findings and conceptual issues which will certainly address the quality concerns in elementary education.


(Dr. P. Perumalsamy)

PREFACE

India, the nation State at 60, has made constitutional, judicial and executive interventions on elementary education for making it mandatory for all states to provide compulsory education for all children of 6-14 age. Over the years, these initiatives have provided enough space for them to have access and educational participation through formal and alternative schooling facilities. Having achieved almost universal access and enrolment in elementary education, quality has become the public discourse concerning people of all walks of life. The paradigm shift from quantity to quality has gained momentum today.

Responding to quality concerns, the MHRD has given a lot of impetus to enhance quality in elementary education through the provisioning of demand -based funds to states in designing in their own programmes and activities under X Five Year Plan. Under the guidance of Government of Tamilnadu, the Directorate of Teacher Education, Research and Training, the State apex body for teacher education and research, focuses on the professional development of teachers and consequently on the quality elementary education. As a pioneer in X Five Year Plan implementation across the country, it chalked out all inclusive plan for faculty development of DIETs, the drivers of quality elementary education. One of the programmes is organizing seminar at District, State and National levels.

Many papers are born of practice, informed by theory. Some other papers examine the assumptions and propositions regarding the quality of elementary schooling. Quite a few of them concern the problems in classroom process leading to workable solutions. The papers discussed put in place the quality issues from the national perspective and throw open the problems for wider educational discourse.

Papers on Quality Assurance address the issues that confront the classroom process and suggest gettable solutions. Many papers on 'innovative practices' have strong grounding on classroom practices and provide scope for wider applications. Education Technology papers deal with global technology brought into local classrooms and point to the new directions where the technology can become an enabling resource for quality learning. Papers on evaluation insists on better testing for measuring desirable learning outcomes. Teacher Education papers map the recent trends in educational research.

Discussion papers on NCF 2005 emphasis the curriculum renewal in wider shared cultural context, particularly in language learning. SSA interventions are critically reviewed in some papers for a mid-term course correction. A few papers attach significance to mentorship, meta-cognition and special focus groups.

Teacher being the direct agents in the process of education and evaluation, sound knowledge and worthy capabilities are essential.

The quality of teachers is decided by the effectiveness of their teaching. "Even the best curriculum and most perfect syllabus remain dead unless quickened into life by the right methods of teaching and the right kind of teachers." - Secondary Education Commission

A creative, committed and competent teacher brings many more innovative teaching learning activities into the classroom to make the success rate of learning at the peak.

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DEVELOPING QUESTIONING SKILL AMONG THE PRE-SERVICE STUDENT-TRAINEES FOR EFFECTIVE CLASS ROOM TRANSACTION

Kartikeswar Behera

Teacher Educator, DIET, Khallikote, Dist-Ganjam, Orissa

Introduction

Questioning plays a vital role in streamlining teaching-learning process in the class room. The pre-service student trainees are the budding teachers of the society. They are torch bearers who lead the small children along the right track of learning with confidence. That is why the practice lessons delivered by the Pre-Service student-trainees should be thoroughly observed for necessary corrections. It is very often observed that the Pre-Service student-trainees handle the classes, according to the plan but the questions they ask are not sound and systematic. Some questions are irrelevant and illogical. They lack objectivity. As a result of which the class room transaction is affected. Taking the above facts into consideration, the Researcher decided to conduct an experiment on developing questioning skill of the pre-service student trainees with the following objectives:

1. To train the Pre-Service student-trainees in the art of questioning.
2. To observe their classroom transaction and record the type of questions at different-steps of the lesson they deliver.
3. To study the impact of the training on enhancing the skill of the Pre-service student-trainees in class room transaction .

The study was confined to the practice lesson of language and social studies of primary class i.e IV & V. Only the topics of language and social studies were dealt for the purpose of structuring questions.

Methodology

Sample: 35 student-trainees who were found to be deficient in questioning skill constituted the sample for the study.

Design: It was a single group with pre & post-test design.

Tools used

1. Observation schedule.
2. Rating scale.

Procedure

First of all the practice lessons delivered by the students-trainees were observed by the teacher-educator of the DIET using the observation schedule. It was done in a planned manner with certain modifications in the usual time-table. Before observing the classes, the students were oriented regarding content analysis in respect of subjects like language and social studies in Class IV and V. According to the format supplied to the student trainees, they made analysis of the content in groups under the guidance of the Researchers. They were acquainted with the objectives of an unit in behavioral terms using action verbs. Then they were trained in the art of preparing questions. After training was imparted, they prepared lesson plans reflecting on different types of questions in the plan according to the interventions extended to them on preparation of questions. Then their lessons were observed using observation schedule. Necessary deletions and additions were made in the plan, with constructive remarks. Then it was planned to observe at least one lesson of a student-trainee in one period. In this way, 5 trainees were allotted per day and within a week the lessons of all the trainees were observed and basing on the observations, the findings were arrived at. Day-wise intervention on questioning techniques are as following:

Day-1: Discuss on the Purpose of Questioning

Key points:

1. Motivating the learners.
2. Know the previous knowledge.
3. Increasing teacher- Pupil interaction

4. Eliciting answer through questioning
5. Explaining the matter for clarity of concept.
6. Diagnosing the learning difficulties
7. Obtaining feedback .

Day-2: Area of Questions

Factual, Conceptual, Thematic, with regard to Knowledge, understanding and application questions.

Content analysis of the topics of language and social studies

Stages of Questioning

Pre-Instructional Phase:

Introductory questions

Instructional Phase:

Discussion questions, comprehension questions, summary questions

Post-Instructional Phase :

Application Questions (Evaluation)

Day-3:

Preparation of lesson plans, reflecting questions according to the steps of the lesson

plan and group wise presentation for modification.

Evaluation & Analysis

After 3 Days orientation, the student-trainees were directed to carry on class room transaction as per the class allotted to them every day. The observers used the observation schedule and recorded their performance in questioning. Again their lesson plans were scrutinized and questions were analysed thoroughly. The lessons were graded using a 5-Point rating scale.

The table below shows that there is a substantial progress in the art of preparing questions as an effect of the training. Very few students could prepare why / how type of questions before training.

After training 70-75 per cent of them could prepare the said type of questions without error. With regard to predictive questions they also improved to an expected level. Relating to application questions they improved to a great extent.

Table 1
Performance of trainees in terms of percentage

Types of Questions	Correctness in Questioning Before Training	Correctness in questioning After Training
Question seeking one or two word answers	50%	90%
Why type of questions	25%	75%
How type of questions	35%	70%
Predictive Questions	10%	60%
Summary Questions	40%	80%
Application questions	40%	75%

It was also revealed from the grading of lessons that they improved substantially because before training their lessons ranged between good and average. As an effect of the training, their lessons ranged between excellent to average.

Suggestions

The pre-service student trainees should be given exposure to prepare questions in the way of workshop/orientation.

Good Questions reflected in lesson plans step wise should be recorded and circulated among the regular teachers for their use during class room transaction. The subsequent batches of student-trainees should be given scope for

using such type of questions during practice lessons. The text book analysis in terms of content's terminology and principles should be done every year as a worthwhile exercise to help them in preparing good questions.

DTERT, Chennai

QUALITY ASSURANCE IN SCHOOLS

P. D. Katkar

Chief Tutor, District Centre for English, District Institute of Education & Training
Babupeth, Chandrapur (Maharashtra)

Swami Vivekananda described purpose of education as manifestation of perfection, already in man. Education is goal-oriented. International Commission on Education in the 21st Century called for holistic development of the individual optimizing physical, mental, intellectual and spiritual potentialities. Human learning has as much to do with learning to “know” and “do” as much to learning to “be” and “live together” (UNESCO, 1996).

Holt (2000) puts forth an interesting argument: “Turning to quality in school systems, the first step is to consider what the “product” might be, that is, to possess quality. I shall suppose that education with the development of minds of the pupils; school produce educated persons who, by virtue of their schooling, make their own and society’s benefit.... How are those benefits to be constructed? Is our aim to be in the pursuit of happiness? The creation of wealth through capitalism? The religious life, made manifest? Our concept of quality is dependent upon what we choose.”

Just as there are wide variations in the individual goals of education, there are wide variations in social goals too. American priority on human rights and personal freedom in the 1960s; has shifted to success of the global economy in 1990s; Britain’s current emphasis is on ‘what the students know and can do’ rather than on numerous goals (Holt 2000). Japanese White Paper on education in the 1980s changed the focus to invention rather than adaptation of technology. Indian social goal is also changing from a literate society in 1960s to a knowledge based society in the 2000. Emphasis is shifting from the previous value-neutral to value-oriented education. In Education, quality is often seen achievable only at high cost-unless additional investment is made, quality cannot be improved. Navaratnam (1997) makes a

forceful statement on the basis of his personal experience: “I knew then that only well managed schools could provide quality education. My knowledge and experience tell me that a managed education means a quality education. My perception of quality was represented by school facilities, teachers, principal, fellow students, learning materials, teaching methods, assessment and technology as well as the surrounding economy, community and political system. ... I also perceived that every school and its system could provide a quality education, but some did and others did not.”

Teachers

The quality of education depends mainly on the competence and devotion of teachers. You cannot expect teachers to teach children while they are starving. They must be given sufficient comfort.

The present practice of recruiting ‘Shikshan Sewaks’ (Para-Teachers) should be banned and teachers on full payment should be recruited onwards as in the past. No course-book can be ideal for any particular class. Every teacher should provide additional material over and above the course-book material.

Pre-service Teacher Education

It has a significant role in Quality Education. Chattopaddhaya Commission recommends a four-year integrated course for the secondary as well as the elementary teacher. The National Policy of Education (NPE 1986-92) recognized that “...teachers should have the freedom to innovate, to devise appropriate methods of communication and activities relevant to the needs of and capabilities of and the concerns of the community.” The Yashpal Committee Report (1993) on learning without Burden noted: ‘...inadequate programmes of

teacher preparation lead to unsatisfactory quality of learning in schools. ...The content of the programmes should be restructured to ensure its relevance to the changing needs of school education. The emphasis in these programmes should be on enabling the trainees to acquire the ability for self-learning and independent thinking.'

The Acharya Ramamurti Committee (1990) in its review of the NPE 1986, observed that an internship model for teacher training should be adopted because "... the internship model is firmly based on the primary value of actual field experience in a realistic situation, on the development of teaching skills by practice over a period of time." The recommendations of the Committee should be accepted to enable the newly recruited to start their career and render the services with enriched experience of internship practice and not on the just limited capital of pre-service education. In-service Teacher Education has the vital role for quality education. The major indicator of quality of training is its relevance to the needs of teachers. The Report of the National Commission on Teachers (1983-85) highlighted the absence of clear-cut policies and priorities for in-service education and lack of systematic identification of needs. However, most of the training programmes are not organized according to the needs of the teachers and the resources are not utilized properly. Due care should be taken in this regard. What teacher needs most ...is a change in the climate of schools, an atmosphere conducive to educational research and enquiry ... (select) teachers could be given study leave and sent to advanced centres of learning for furthering their professional competence... through visiting fellowships.

Practice of "Black Teaching" (Koul, 1981) should be stopped at all cost. Any act of teaching in which the teacher cheats the learners of the legitimate share of teaching, consciously or unconsciously is an act of "black teaching." This could be prevented by excessive in-service teacher training. Also the teachers must be compelled to teach their

wards in schools where they are serving in, so that they may perform their duties with full enthusiasm.

Learners

No logic could be taught along with starvation. Mid-day meal programme should be developed on a larger scale in all the States. Knowledge interwoven with values creates wisdom. Whatever be the methods used in the classroom, the learners should never be treated as an empty receptacle. All the pupils get to be motivated and involved in the teaching-learning process. Free books should be provided to all elementary school children irrespective of their caste, category, gender and economical status.

Physical facilities

Physical facilities and well developed infrastructure are equally important and play positive role in imparting quality assurance in schools for elementary education.

1. Out of 10,37,813 schools across 581 districts, about 5,04,381 schools are yet to be provided boundary walls. A good number of Primary (55.62 per cent) and Upper Primary (34.21 per cent) schools do not have boundary walls and put question for the safety of small sensitive kids.
2. About 78.80 per cent Primary schools have drinking water facility, compared to 86.68 per cent Elementary schools and only 21.46 per cent schools had tap water in schools in 2005.
3. A few Primary schools have common toilet facilities (41.43 per cent) and a few separate toilets for girls (24.27 per cent).
4. Only 28.37 per cent schools had electricity connection.
5. As many as 81,617 schools did not have blackboard in school, which is 7.86 per cent of the total schools. DISE data reveals that about 47 per cent schools have blackboard at ground level in the classroom.
6. About 11.49 per cent schools had ramp facility in 2005. Almost one in every three

disabled students in elementary classes has been found to be having some problems in moving.

7. Eight out of ten and five out of ten schools respectively under Private and Government management had playground in schools.
8. All-India average of 581 districts reveals that, on an average, there are 4 teachers in a school which impart elementary education. As many as 1,07,842 schools in 2005 had only single classroom which is 10.39 per cent. Teaching in single-classroom Primary schools with all children sitting in one room is a challenging task. Unless all the schools are provided at least two rooms, meaningful teaching-learning transaction is not expected to take place.
9. As many as 1,25,786 Primary schools are single-teacher schools and 1,20,691 schools are located in rural areas.
10. It is observed that as many as 35.37 per cent Primary schools, no female teacher has been posted.

Fulfillment of these requirements is urgently needed for the quality assurance in schools.

School Visits and Observation

Nearly 63.01 per cent of the total schools were visited by the CRC Coordinators during the academic year 2004-05. Often school visits and observation in a real sense by the Officers would also assist to serve the purpose. Teachers are involved in the non-teaching assignments. Teacher involvement in non-educational activities should be stopped and their services should be utilized for the educational purposes only for the quality assurance in schools.

Quality Assurance in school is the teamwork and joint responsibility of the department, the teachers and the society as well. Attempts should be made from all the sides by taking initiative with full dedication and devotion in preparing the capable and qualitative generation of the nation to face successfully all the forthcoming challenges in this competitive and technological modern era.

PERCEPTION OF STUDENT TEACHERS TOWARDS COMPETENCY BASED TEACHER EDUCATION IN PUDUCHERRY REGION

S. Singaravelu & K. Ezhilrajan

Lecturers, Faculty of Education, Vinayaka Missions University, Puducherry

Introduction

“Competency Based Teacher Education” is the new and innovative concept that claims to revolutionise teacher education. Traditional teacher education programmes are based on the assumption that by taking a sequence of courses, student gains various type of knowledge and experience that will enable him to become more effective teacher. These programmes fail to specify in terms of observable and measurable performances. But in Competency Based Teacher Education, goals and priorities are established in terms of certain performance criteria of teacher education students.

Competency

“The Competency of a teacher is defined as the average success of all his behaviour achieving their intended effects” (Medly & Mitze, 1963).

“Teaching Competency is one or more abilities of a teacher to produce agreed upon educational effects” (Biddle, 1964).

M.R. Benedit Kumari (1999) in her study has identified the following teacher competencies for raising achievement level of students.

They are:

Class related Competencies

- Lesson Planning and instructional Management
- Evaluating and Remedial Skill
- Innovating and Experimenting

School Related Competencies

- Development of Positive attitudes
- Administration and Management
- Inter-school relations
- Image and Morale building

Pupil Related Competencies

- Identification of Pupils’ talents
- Identification of Pupils’ characteristics
- Identification of Pupils’ needs
- Developing non-cognitive skills among pupils
- Guidance and Counselling skills
- Helping Pupil to Develop Personality

Community Related Competencies

- Awareness building
- Ensuring participation
- Mobilisation of resources and its utilisation
- Public relation

Curriculum

- Initialising
- Planning
- Developing
- Implementing
- Evaluating skills

Motivational Competencies

- Motivating Pupils
- Motivating Colleagues
- Motivating the society members

Value Related Competencies

- Playing an ethical role model
- Developing Values among pupils
- Developing values among members of the society

Leadership

- Developing Leadership qualities for oneself
- Developing Leadership qualities for their students
- Developing Leadership qualities among society members.
- Developing Leadership qualities among colleagues

The present study aims at finding out the perception of student teachers (pre-service) at primary level towards competency based teacher education in Puducherry region.

Objectives

1. To find out the perception of the student teachers about the competencies that raises the achievement of the students.
2. To find out the differences in the level of perception of the student teachers about competency based teacher education regarding the groups' sex, Locality, type of selection and community.

Method

The investigator has used normative survey method in this study

Sample

Two hundred student teachers (pre-service) from various teacher training institutes of Puducherry were selected randomly to constitute the sample for the present study.

Tool used

The tool 'perception of student teachers about competency based Teacher Education scale was constructed and standardized by M. R. Benedit Kumari and Dr. V. Vinaitheerthan .

Findings

- ✧ Men and Women student teachers do not differ significantly in their perception

towards competency based teacher education.

- ✧ The perception of the student teachers towards competency based teacher education is above average.
- ✧ Urban and rural student teachers differ significantly in their perception towards competency based teacher education.
- ✧ CENTAC students and management students differ significantly in their perception towards competency based teacher education.
- ✧ There is a significant difference in the perception towards competency based teacher education regarding their communities.

Conclusion

Quality of nation depends upon the quality of education imparted to its citizen, which in turn depends upon the quality of its teachers. Kothari Commission observed that "Destiny of the Nation is being shaped in her classrooms". National Policy on education has rightly stated that "No system of education can rise higher than its teacher". Teacher is a vital element in teaching learning process. So such a teacher should be well prepared to meet the demands of modern challenges of the society. Here comes the role of 'competency based teacher education'.

MORE COLOURS IN THE SPECTRUM OF QUALITY IN ELEMENTARY EDUCATION

P. Golda Grena Rajathi

Senior Lecturer, Work Experience - Branch, DIET, Munanjipatti

The essence of quality lies in its conception, practice and execution. It is a highway without a by-pass. There is no foreword to quality. Quality facilitates envisioning new horizons of human mind and adds value to all actions. Institutions without a commitment to quality lack the aesthetics of their existence. A commitment to quality keeps the organizations always young, energetic and buoyant. Quality is perceived in different ways by different minds. The facet of Quality perceived by individuals or organizations depends mostly on their frame of mind, their aptitude, their priorities and interests. It also depends on time, space and cultures. Thus it presents a spectral view. The colour one chooses determines the concept of quality of one's framework.

Quality: What is and what not

The concept of quality is not a gift of modern science or technology but is perceived as a product, a process or a thought, from time immemorial, in all walks of life. It is also often said that quality, like beauty lies in the eyes of the person. It is purely personal. The approach to the concept of quality depends on professional needs and attitudes. Quality is not luck; it is a definite pursuit towards certain established standards or set goals. Quality is basically an idea, a concept. Hence, it encompasses the entire spectrum of an activity. The idea is basically an antithesis of creativity innovation and development. Hence, achieving certain set standards may be an indicator of a quality performance, but as a concept, quality is a journey setting its own goals from time to time, improving upon the levels of quality already achieved.

Quality: The Myths

Very often quality is associated with certain external factors which create a virtual

perception of it. Quality is not *profitability*. If we do not have an in-depth understanding of the concept of quality, we may perceive certain myths about quality.

- *Awards and rewards* are not necessarily an index of quality.
- *Brand* is not an index of quality.
- *Cost* is not necessarily an index of quality.
- *Durability* is not necessarily a measure of quality.
- *Plenty or readily available* is not an index of its quality.
- *Speed / Success* is not necessarily an index of quality.

Challenges to Quality

Quality and education were considered as an integral part of human development. Prescribing the need and the urgency of integral education, Sri Aurobindo states: Education to be complete, must have five principal aspects relating to five principal activities of the human beings, the physical, the vital, the mental, the psychic and the spiritual. All the five elements have their own logic of growth and complement each other in man's developmental process. When all the five elements are nursed and nurtured, the concept of quality emerges as the essence of life. The challenges to quality in the present day elementary education may be listed as:

- The challenge of information
- The challenge of technology
- The challenge of speed
- The challenge of globalization
- The challenge of consumerism
- The challenge of materialism

Issues in modern elementary education

Quality of elementary education is determined by certain basic infrastructural inputs available

in the schools and institutions rather than the content, the methods and the effectiveness of learning. The emphasis on cognitive learning has underplayed the connective domain. The building up of 'emotional intelligence' is minimal and there is evidence of increasing stress-prone individuals. Moreover, product orientation of education in terms of measurable results has outweighed the importance of the process. Some of the consequences are:

- ✧ Poor reading skills
- ✧ Poor communicative skills
- ✧ Poor practical skills
- ✧ Poor thinking skills
- ✧ Poor sense of aesthetics
- ✧ Emphasis on rote memory
- ✧ Marginalization of poetry, literature and fine arts
- ✧ Increasing stress and violence
- ✧ Killer instinct rather than cooperation
- ✧ Inability to live together and many more.

It is high time that elementary school education addressed itself to the above issues and reoriented itself to the emerging needs. The major needs to establish Quality Management in Elementary Schools are:

- Needs constancy for the purpose of improvement.
- Cease dependency on mass inspection. Because inspection is the lowest level of quality assurance, as fear and suspicion are against creativity and innovation.
- Need quality leadership, as a leader can provide the necessary ambience and environment for continued enhancement of skills and assurance of quality.

- Ensure that all team members are made confident of their skill enhancement.
- Establish commitment to quality.
- Identify the barriers that would be the roadblocks to achieving quality. Hence focused steps have to be initiated in removing the road blocks lest all efforts to achievement of quality fail to yield necessary outputs.
- Create organizational structure in such a way that it is a driving and monitoring force to achieve quality.
- Needs documentation at all levels of the progress of the cycle and the participants are to be informed about the results and the status of progress.
- Plan and implement zero-defect systems.
- Set up quality councils which will provide a broad platform to mutual consultations and discussions among the stakeholders.

Conclusion

The quality of the learners of a school reflects the mental health of the school environment. As quality is a dynamic concept, it has to be brought about through an attitudinal change. To bring about this change and to facilitate the learners respond to quality initiatives, they need to be inculcated in developmental education. It may be a futile exercise to fix the responsibility on each and every one who belong to elementary education at this point of time, that it is necessary to redeem some of the vital aspects like individuality, creativity, excellence and the quality of pursuit become an integral process in the present day educational systems.

THE QUALITY ASSURANCE IN SCHOOLS BY EFFECTIVE TEACHERS

Dr. S. Desingu

Principal, Cooperative College of Education, Puducherry

Introduction

The quality assurance for the entire education of teaching and learning is considered as inevitable in school management. This management process have adopted three basic approaches which are Accreditation, Assessment and Academic Audit.

Accreditation

Accreditation in school level determines the objective set forth for achieving quality education to produce the desired outcome of quality assurance. The effective teachers should maintain good rapport of interpersonal relations between teacher and student. The accreditation is not only perceived as sufficient to assure the quality of teaching and learning, but also the processes of Assessment and Academic Audit have to be evolved for the purpose of achieving quality assurance in schools.

Assessment

The assessment is an evaluation process of the educational activities such as teaching and curriculum in the academic Units. The effective Teachers should be aware that the assessment is made against the success or shortfall with reference to the school set goals and objectives, then only quality assurance in school education can be achieved. The success of this practice is obvious for increasing pass percentage like state ranks, hundred percent pass which will lead quality assurance in schools by effective Teachers.

Academic Audit

Academic audit is essentially a peer review done to validate the internal quality assurance, assessment and improvement of school system. It focuses on the delivery of quality education to the students. Academic Audit are essentially external quality assuring mechanisms and are usually done by an

agency set up by the nation. It evaluates the appropriate inputs and the soundness of the processes involved for maintaining quality assurance in schools.

Concept of Quality Assurance in Schools

The effective Teachers are essential for the improvement of the quality assurance in schools. The quality assurance is a dynamic process involving continuous monitoring of performance and corrective actions committed by the effective teachers in schools. Quality assurance in schools cannot be superficially achieved. It needs talent and hard work of the effective Teachers. According to Green and Harvey (1993), the quality assurance is "the mechanisms and procedures designed to reassure the various "Stake holders" in higher education, that institutions accord a high priority to implement policies, designed to maintain and enhances institutional effectiveness. In general, conceptual level of quality assurance in school education refers to a continuous process that is proactive rather than reactive process. Teachers need to be educated and equipped properly to play their role most effectively for enhancing quality assurance in schools. Also well organized education programmes can help greatly in this regard.

The effective Teachers

The effective teachers are capable to bring about the desired quality assurance in schools. To develop the quality assurance in schools, the following quality behaviors of effective teachers are essential;

- Leadership
- Interaction
- Organization
- Rapport
- Flexibility
- Enthusiasm

So, the quality competence and behaviors of effective teachers are most significant factors for influencing the quality assurance in schools.

Obstruction in the way of quality assurance in schools

1. Religious barriers religious barriers leading to prejudices.
2. Economic barriers restrictions on international relation, foreign aid, etc.
3. Linguistic barriers - not giving importance to foreign languages.
4. Political barriers - interference of political administration.

These are the factors often playing negative role for the development of quality assurance in schools.

Quality Assurance in Schools

The quality assurance in schools can be achieved with five thrust areas by effective teachers

1. Teachers' Academic Planning
2. Teachers' Academic Support.
3. Teachers' and Staff Support Services
4. Administrative Support
5. Infrastructure and Management.

All teachers should be aware of the quality assurance by NAAC. This will bring the necessary steps to work together for quality

assurance in schools, so that quality education will be assured in school education.

The quality assurance can be achieved as a way of meeting long-standing quality education concerns in schools. The moral imperative is the need to find a basis for management action towards quality assurance in school maintenance. If a nation wants quality education, it must have quality Teachers. The quality assurance in schools depends primarily upon the effective teachers who have sound knowledge of academic planning and power of school management. The effective teachers should have close and intimate academic interaction with students. So, the quality assurance in schools can be improved by having strong school accountability by effective teachers.

The common goal of attaining excellence and quality in school education is further to strengthen plans and actions for bringing quality assurance in schools. The quality assurance in schools is essentially a product of intensive investment of capital, talents of effective teachers and their hard work. Quality assurance in school is not an accident; it is a design of the effective Teachers. It is not a destination, but a continuous journey of quality teaching by effective Teachers. The role of the effective Teachers is the most important aspect for quality assurance in schools.

A STUDY OF THE FACTORS AFFECTING THE DROP-OUTS AMONG THE PRIMARY CLASS CHILDREN IN DHARMAPURI DISTRICT

S. Kumar

Senior Lecturer, DIET, Chennai

Introduction

Education is the fundamental right of all citizens and it is essential for the overall development of an individual. The objective of primary education is to build up a responsible personality capable of functioning as a useful citizen. It is proved to be promising and sustainable investment for a country and its people. It is the escalator which promotes individuals for any further educational pursuits. Numeracy and literacy secure the ticket for the students for a wider world of art, science and technology.

Article 26 of the Universal Declaration of Human Rights declares

"Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and Professional education shall be generally available and higher education shall be equally accessible to all on the basis of merit".

Universal enrolment of children and their subsequent retention cannot be ensured unless education of a satisfactory quality is imparted and more important keeping in view of the background of children with specific reference to their economic, social status and the cordial environment of the school. Though our country has made much progress in expanding primary education in the last few decades, a very large number of children continue to be out of school. About 32 million of the 105 million children aged 6-11 years are out of school. In other words, India's primary education glass is two-thirds full, one-third empty (World Bank Report, 1997).

There are several causes responsible for wastage and stagnation in education at the

primary level. Most important among them are the following:

"Educational causes are the facilities and quality of education being imparted in an educational institution. It depends upon the physical facilities like building, garden, play ground, furniture, equipment and properly qualified and experienced teachers, etc.

Economic cause, i.e. the institution's suffering from the paucity of funds. The poverty of the masses aggravates the situation all the more. This leads to great wastage and also stagnation. Children may drop out from school for even simple reasons like the absence of school-based extracurricular activities". (Mahoney and Cairns, 1997)

Objectives of the Study

The objectives of the study are to find out the influence of Socio-economic, Family related, School related and Personal factors of school dropouts and the role played by the society on school-dropout of Primary Grade Children.

Tool Used for the Study

- ✧ School Record Schedule for School Heads.
- ✧ Students' schedule for School dropouts.
- ✧ Interview Schedule for Parents/Guardians of the selected school-dropouts.

The Interview Schedule consists of questions which are open-ended, multiple choice and 'Yes/No' responses from the selected subjects.

The interview schedules for the dropouts elicit demographic details such as age, sex and caste of the drop-outs in order to examine the reasons for dropout. The demographic details related to the school, its infrastructure, and other facilities / resources provide the other reasons for school drop-outs.

All the eight blocks of Dharmapuri District were selected for the study selecting ten primary schools randomly from each block making a total of eighty schools. From each school, five dropouts were randomly selected making a sample of 400 children.

Analysis of Data

The responses of the subjects were collected using interview schedules. It is a direct form of inquiry, involving face-to-face communication between the investigator and the sample subjects. The investigator met dropout boys and girls, parents of the dropouts and the school heads of the dropouts. By this method the investigator got information regarding reasons for withdrawal of children, parents' attitude, parents education level, occupation, family income and family size and suggestions for removing drop out problem.

The students were required to furnish the reasons for dropping out. The investigator tried to find out if they dropped out due to (a) school related reasons or (b) family related reasons or (c) teacher-related reasons. The investigator ranked the reasons attributed for dropping out of schools and the causes for dropping out by are ordered by subjecting the data to factor analysis. The aggregate score of reasons are interpreted for described and comparison. The interview schedule for the parents of dropouts aims at collecting factual information as well as reasons for the dropouts. The frequency distributions of the parents' reasons for the dropout of various standards and communities on the basis of the parents education, occupation, family income and family size were constructed.

The interview schedule for school heads is intended for collecting the Headmaster's opinion about the causes for the dropouts.

The reasons for dropouts as given by school heads, parents and students are analysed and ranked for each group. The ranked reasons are used to compute correlation among the reasons

given by the three groups. Raw data were coded, tabulated and statistically analysed.

Findings

The study throws light that the girls' drop-out is more than that of boys due to the reasons of sibling care and gender bias. The analysis of the data shows that drop-out is more among SC/ST population due to the socio-economic reason, lack of parental demand for quality education. Generally, child labour is one of the important causes for drop-out. The first born students dropped out more because of their responsibility of supplementing the family income. The literacy of parents and low income and their attitude are the factors determining the drop-out of their wards. The illiterate and poor parents are unable to provide necessary support for their children's schooling and hence the children of such parents drop-out more from schools. Frequent migration of parents increases the chances of dropping out. The students hailing from nuclear family do not get academic support due to various family reasons.

The students who are not motivated properly in school tend to drop-out from schools. The lacklustre teaching methods and poor infrastructure of the school do not encourage the children to attend the school regularly. The study reveals that students from such schools drop out more. The repeated failure in the school examinations affects the self-esteem of students and such students drop out more from schools as per the study. Drop out is one of the problems challenging the school education system. The Government of Tamil Nadu adopt various innovative teaching learning strategies like ABL to reduce the drop out rate and to encourage the students to attend the school regularly and learn the concepts with interest. Besides teachers, teacher educators, parents and community should take ownership of schools of children and sustain the schooling process till they complete school education.

ACHIEVING QUALITY ASSURANCE IN ELEMENTARY SCHOOLS THROUGH TEACHERS

V. Narayanan¹ and V. Sukumar²

¹Lecturer in English, ²Lecturer in Mathematics, DIET, Pudukkottai

Introduction

Education has been made the fundamental right for the school going children in India and every child has the right to get quality education anywhere in the country. As the Noble Laureate Dr. Amrithya Sen indicates, the future of the country lies in the Primary schools and if it is fine-tuned, all developments will automatically follow. Soon after his clarion call, the Government started bestowing care and attention to the Primary Education in the country. Consequently, many Primary Schools were opened, giving the fruits of education to all the school going children.

A 2001 study conducted in 23 states by NCERT found that, for a sample of 65,000 urban and rural grade 4 students, the average achievement of grade 4 was 46.4% (Sukla and others).

Students correctly answered fewer than half of the Arithmetic questions in 19 States, fewer than half in reading comprehension in 16 States and they correctly spelled fewer than half the words on spelling test in 15 States.

Major research reviews have classified school inputs in a wide range of categories [Fuller and Clarke 1994, Levin and Lockheed 1993. Lockheed and Verspoor 1991.] Among researchers in India, Saxena, Singard Gupta(1995) divided school level inputs into teacher quality, school resources and school academic climate.

With the SSA in force now, the last two have been achieved to a greater extent. The Central and the State governments have spent / invested crores of rupees in primary / Elementary education in the form of new buildings, additional buildings, infrastructure facilities, creating new postings, installing new

schools, upgrading schools, TLM grants etc., With these coming in handy, what is yet to be achieved is quality. The quality of school education mainly lies with the teachers. The Governments provide all the external things necessary for a school and teaching. Many need-based training programs are designed and offered to teachers to meet the emerging challenges in education. But the real teacher quality, should emerge from 'within' the teacher. It is more an attitudinal issue on the part of teachers.

Teachers' Quality and Subject knowledge

Indian experience and international researches confirm that proxies for teacher quality such as certification, pre-service education and salary are not related to students' learning achievement. (Hanushek 1994; Kingdon 1996) What really matters is teacher's knowledge of the subject. Despite the high level of teachers' pre-service education in India, many teachers lack a strong foundation in the subject they teach. Improving teachers' knowledge is likely to improve the students learning outcomes. Teachers' experience has not been found to be an important predictor of student achievements as found in many studies. The Government has made great strides in improving the quality of the teaching corps raising pre-service general education requirements, improving the Pre-service and in-service training, increasing the number of female teachers etc., But the capacity of the teaching force to deliver high quality education is constrained by many factors. To increase the effectiveness of the teaching force and achieve maximum levels of learning by children, the challenge for the next decade is to improve the preparation, motivation, and deployment of teachers.

Despite high levels of formal education, training and experience, many teachers have

little understanding of the material they teach. The pre-service training course provides the prospective teachers little opportunity to improve their subject mastery. There is also little practical training in child development. Whatever they learn, could not be applied to general principles of learning and child psychology. Educational psychology course neglects school readiness issue, to a large extent and this should be attended immediately. The gap between the learning in the Teacher Training course and applying the same in schools should be minimized. Then only the training would be successful both to the teachers and to the students.

In-Service Trainings to teachers

To compensate for teacher's limited subject knowledge and repertoire of teaching practices, governments have supported the development of in service trainings to teachers. In many states, it is found that low-literacy area teachers received fewer than 20 days of in- service training since their appointment as teacher or about one day a year. But SSA ensures 20 days training for elementary / primary teachers in a year. In fact that training period is so designed as not to affect the school working days. Experience shows that learning complex skills to promote active learning requires several days of training followed by periodic reinforcement to sustain changes in teaching behavior .

The teachers are in need of effective training to sharpen their teaching skills. Whatever they learnt during the training course could not help them to cope with the new emerging classroom situations. It is a wonder how the Lesson Plan the teachers write with all enthusiasm during their training period, changes to notes of lesson once they become teachers. The two pages lesson plan is minimized to half a page notes of lesson. Many teachers, in due course of their Service, become oblivious of writing a good lesson plan. Beyond the mastery of the subject matter of instruction, teachers need to have a wide range of teaching skills, to be effective.

The Infrastructure

Most of the in-service training programmes are provided through DIETs, BRCs, CRCs, and NGOs. DIETs are comprehensive institutions, equipped well to provide technical support to district education administration for improving the quality of elementary education. The DIETs provide continual in service trainings to all elementary teachers in a district. Because of the magnitude of the task and to ensure quality, BRCs and CRCs have been established in all districts. The BRCs and CRCs are taking over much of the in-service training programs , a shift that could transform DIETs into institutions for co-ordination, academic support and quality control.

The working conditions for primary teachers are often poor, especially in rural districts. Many schools lack classrooms, flooring, partition furniture, and instructional materials. Electricity, Toilet facilities and drinking water are seldom found in rural schools. Many teachers come to work by two wheelers and one-third has to travel for an hour to reach school. Only 20% of teachers report receiving academic support from others. Many schools have multi-grade teaching. Student's absenteeism is a major factor causing concern to the teachers.

Remedies to the above problems

The first strategy is to make 6 months school teaching obligatory, for passing the DTE course. It is on par with the Medicos practicing as House Surgeons before being awarded MBBS degree. This will enable the trainees to have first hand and practical knowledge of teaching in actual schools. This will also prepare them for the profession, they are entering immediately.

The second strategy is to offer elementary teachers, training on context analysis and conceptual clarity every year. This should be at the rate of 2 days per subject. This will help them to update their knowledge and skill in their subjects. It should be ensured that all the teachers in all the Primary Schools are covered under this program. The training venue may

be DIET / BRC / CRC, depending on their strength and access.

The third strategy is to monitor the follow up after the training, at schools. This will make the teachers implement whatever they have learnt in the training program in the classroom. The impact of the training should be assessed among the school children within 2 months from the date of the completion of the training. The fourth strategy is to equip all schools with infrastructure facilities like classroom, water, furniture, toilets etc. All these will create a conducive atmosphere for joyful learning and

effective teaching. The enrolment and retention of students will definitely improve on fulfilling these basic needs. These will make the children love their schools and learn better.

The fifth strategy is to award the Elementary Teachers extrinsic rewards like special recognition, more authority over decision making at school level, greater opportunity for travel and training etc. Such of those teachers with experience and skill, may be appointed as Master trainers in DIETs or SSA.

DTERT, Chennai

QUALITY OF EDUCATION IN MADHYA PRADESH

Atul Danayak

SCERT, Madhya Pradesh

The Constitutional provisions put education into concurrent list, thus Central and State responsibilities in this endeavor has to go together and will have to explore challenges and work out strategies to meet those challenges. Very large majority of children who survive the first eight years of schooling, transit to the secondary level. Scenario of secondary education, based on the assumed success of SSA, predicts that almost 1.5 times more children will enter into this sector of education. The CABE Committee on USE in 2005 has also emphasized. Universalisation of Secondary Education has to be an intensive effort with core coordination among various state level organizations and institutions, viz. Directorate of Public Instruction, Rajya Shiksha Kendra, TBC, and Board of Secondary Education of the Department of School Education. The issue of expansion for access, curriculum development and modernization for quality, development of quality Text Books and convincing assessment in scholastic and non-scholastic areas are inter dependent areas, thus require one more mission mode effort. The concept of and issue in quality in education have been debatable issue and is a relative term. Education is goal oriented. There are individual and social goals therefore it has changing values for person to person and society to society. Indian philosophy covers a wide range of conceptual issues and practices. Thus quality education implies comprehensively developing individuals to their full potential. The International Commission on Education for the 21st Century conforms to the purpose of education as manifestation of perfection already in human beings. Education has been defined in terms of process, relationship between the teachers and taught, as well as in terms of its impact.

Scenario of Madhya Pradesh

Madhya Pradesh is the second largest state of India and known to be the heart of the country. In spite of its central position it has characteristic of a marginal state. On 1st November 2000 it was bifurcated to create a new state of Chhattisgarh.

The Literacy rate of the state is 64.11 % which is close to the national average. A summary of the literacy profile of the state is as under.

Literacy Scenario of the State			
	Literacy Rate (1991)	Literacy Rate (2001)	Decadal Growth
Male	58.54	76.80	18.26
Female	29.35	50.28	20.93
Total	44.67	64.11	19.44

Source: Census - 1991 & 2001.

In addition to the formal schools, alternative primary education facilities have been started to ensure that the children who are out of the formal system may also get an opportunity to educational facilities that will ultimately lead to their main streaming in the formal education stream. Apart from government efforts there are number of private institutions contributing to elementary education system, however, formal figures are not available. The government reports state that at the elementary level GER is 98.8 in the year 2004-05, but even than 1.98 lakhs boys and 2.30 lakhs girls are out of school in the age cohort of 5-14 years. The State conducts District level Board Examination at the class 8th level. Rajya Shiksha Kendra controls and monitors the system. Passed out figures at class 8th level for last three years show that the pass percentage of children has been increasing and so is the number. Interestingly pass percentage of girls is slightly higher than that of boys, though enrolment of girls at this stage is significantly

lower than the boys. Thus transition rate of girls at elementary level is low in the state, which confirms the National Sample Survey Organization's Status Report published recently. Performance at the elementary level opens the window of success at the secondary level. Transition rate at secondary level can be high only when the quality at the elementary level is of good standard. Gender gap should also be reduced.

Secondary Education

The Secondary education in the State is governed by the Madhyamik Shiksha Adhiniyam-1965. As per this Act the Board of Secondary Education was constituted with corporate structure. Members of the Board are nominated by the government, ex-officio members are the Heads of the different concerned government Departments related to School Education. Directorate of Public Instruction looks after the establishment and management of teaching-learning processes of this sector of education. Thus intensive supervision and monitoring by the Directorate makes a lot of difference in curricular transaction at the Secondary level. Rajya Shiksha Kendra looks after Teacher Education Institutes viz.-B.Ed., D.Ed. etc. and also develops Text-Books for the school level education. The Board of Secondary Education (MPBSE) plays vital role in developing Curriculum for secondary level in consultation with NCERT, RSK and other specialist agencies in this field. The Board also advises the government on issues related to Text-Books. Conduct of Public Examination at High School (Class 10th) and Higher Secondary (12th) level is an important responsibility of the Board. Recognition to the schools at the secondary level is another area of responsibility of the Board. To perform these responsibilities the Board has Regulations as per Madhyamik Shiksha Adhiniyam-1965, and also have Committees to take appropriate decisions on concerned issues.

Access

Access to the secondary level of education is an important area of concern to achieve Universalization of Secondary Education. The private sector is imparting vigorously in this sector and almost equal number of recognized schools is functioning under government and private management. However, major rural areas are served by government run schools..

Enrolment

Year-wise enrolment at Secondary and Senior Secondary level shows the increasing number at this stage of education.

Analysis of Results

The Board conducts public examinations at class 10th and at class 12th level. However, the Board is providing question papers for class 9th and 11th to the Directorate of Public Instruction for government schools and it is optional for private management run schools, since last year. It is evident that pass percentage at secondary level is quite low. The pass percentage in SC, ST categories is even below the total average. The above data includes all schools, the figure for government run schools are even below vis-à-vis 19.21%, 22.44%, 27.84% respectively for 2003, 2004 and 2005. It shows that, though government run schools are serving rural areas of the state yet performance is not up to satisfactory level. Department of School Education in collaboration with the Board undergone an exhaustive analysis of the High School results and remedial measures have been taken for improvement. Some highlights are mentioned below.

Subject-wise Pass Percentage

Subject	Pass %
Mathematics	39.20
English	47.07
Science	56.80
Social Science	61.55
Hindi	74.47
Sanskrit	74.55

Source:

High School Certificate Results 2005

Subject-wise analysis of the results of government schools shows the performance of the students in different subjects and weak areas for intervention.

Mathematics and English appeared as most difficult subjects for students. There are number of factors which are responsible for the poor performance. Among districts Bhind (24.80%), Dewas (24.76%), Vidisha (24.72%), Rewa (20.09%), Shahdol (22.60%) performed very poor, especially in Mathematics resulting in poor performance in over all result at High School level. These districts performed poor in English also.

Strategies for Improvement

Directorate of Public Instruction has taken important initiatives to improve the quality of teaching-learning process. A strategic plan of action with guided supervision and monitoring has been taken on top priority. Teachers and Principals are oriented and instructed to prepare school based plan of action on following points:

- Time-bound work plan and activities as per Academic Calendar of School Education Department.
- Unit-wise division of syllabus.
- Follow up of Teacher's Daily Diary.
- Regular checking of home-work.
- Identification of students in C and D category as per performance in terminal examinations and arrangement of remedial teaching.
- Use of audio-visual teaching aid for effective teaching.
- Explanation of Science and Mathematics through experiments.
- Arrangement of mobile teachers.

- Anticipation of expected results.
- Preparation of question papers for terminal examinations and pre board exam.
- Teachers Training in collaboration with Directorate and the Board , especially for Maths, Science, English and Sanskrit.
- Teachers Training through SATCOM.
- Guest lecture through PTA at local level.
- Teaching through CD's.
- Monitoring and remedial measures through Tele-conferencing.
- The Board has been organizing special workshops for question-paper setters and moderators, apart from regular training program for Mathematics and Science faculty teachers and Principals through its Training Center.

Conclusion

As the State is rural dominating state, therefore to universalize secondary education, more focus should be given to the rural sector. Achievement level and quality of learning at feeder stage i.e. Upper Primary is to be enhanced, so that children may enjoy and understand better at the Secondary level. Quality secondary schools should be provided for equity. Subject specific teacher deployment in each school is a prime requirement to maintain quality. The Board shall have to evolve a strategy for evaluation in CCE mode along with summative evaluation, so that credibility of certification may get improved. As the Panchayati Raj system is well functional, therefore Local Bodies should be sensitized to understand the needs and aspects of secondary education that is different from elementary education.

QUALITY CONCERNS IN ELEMENTARY EDUCATION

M. Saminathan

Lecturer, DIET, Kotagiri

"Schools are laboratories which produce the future citizens of a state." (Moulana Azad)

The National Policy on Education 1986 and the revised NPE1992, emphasis the urgency to address the quality concerns in school education on primary basis .quality cannot improve by itself. The gap between the planned and realized goals of education continues to be large that even the basis of educational planning and underlying assumptions can be easily challenged.

The interstate and intrastate variations in school facilities, quality of teachers and learning outcomes are large and so are social economic conditions of the areas where the primary schools operate. While indicators to measure the access, retention and internal efficiency of educational system by means of participation rate. Accessibility, repetition rates, promotion rate, dropouts rate, and input output ratio have been developed but little information is available in this regard. No detention policy as followed by the most of the states, prohibits the use of examination in the beginning. Hence the system of continuous and comprehensive evaluation has to be implemented on permanent basis. Reforms in the quality of education have not received serious attention in many of the states. Always good assessment techniques give accurate grades for student performance and enable the teachers and decision makers to take correct decision.

What is quality education?

There is no consensus among educationists regarding the definition of the quality in education but there are many ways of measuring quality in education. The concept of quality is linked to the efficiency of the teaching- learning processes. The quality of education and its determinants remain a topic of interest since the beginning of formal education. There are various agencies like

NCERT, UNO, DTER, SIEMAT, NGO, UNIVERSITY RESEARCHES, etc. which are involved in assessing the quality by conducting regular research and their findings and recommendations are used in for the development.

Quality cannot improve by itself. It requires infrastructure in schools, teachers' motivation, and a change in the style of teaching to make it attractive to the students. To improve and assess the quality of education, a number of centrally sponsored schemes and externally funded projects, undertaken in the recent years are experimenting with various models of teaching of learning for bringing about increased coverage, retention and improvement in quality. Apart from conventional teaching, teachers evolve their own methods, using TLM, ALE, CAL, MULTIMEDIA TEACHING. The teacher educators has to cater the present day need and that has to be collaborated in the syllabus of teacher training, ways and means of new teaching methods and innovative approach in teaching.

Sarva Shiksha Abiyan (SSA) a major programme of government of India for the promotion of universalization of elementary education, has several features that seek to improve the quality of education. The innovative interventions under SSA new programs like Children's Language Improvement Programme (CLIP), Integrated Learning Improvement Programme (ILIP), Computer Aided Learning (CAL), 3 R's Guarantee Programme are very helpful for teaching learning process and to achieve the quality of elementary education. In-service training as suggested by the NCERT should be split up into institutional training, "on site" implementation of recommended strategies by the teachers in their own classroom settings and finally meetings at BRC, CRC level to facilitate peer interaction amongst teachers.



The new system Activity Based Learning (ABL) introduced in Tamil Nadu with regard to class I to IV has got great welcome and made all the individuals to learn with interest and climb the ladder, to higher level with real joy.

Conclusion

The positive attitudinal change has to take place in the minds of teachers, to make a

wonderful creative child. Teachers in successful schools were learners themselves, in their personal as well professional life. They expose themselves to a plethora of opportunity to keep abreast with the new and innovative ideas. The wholehearted dedication of the teachers to the duty will increase the learners to enjoy and understand the learning by which, the quality will improve and increase.

DTERT, Chennai

EFFECTIVE FUNCTIONING OF SCHOOL COMPLEXES

Sridevi Lalam

School Assistant, Z.P.H. School, Gidijala, Anandapuram (M), Visakhapatnam Dist.

Introduction

School Complex is one of the important centre to enhance the professional competency of the teachers. This centre will provide the opportunities for the improvement of the standards and quality in the institutes. the school complexes are the important centre to make the teachers contribute more on the developmental aspects and share with the other fellow teachers for the quality enhancement at their levels. In the school complex centres, the lead school is taking prominent role for successful participation and contribution of the teachers. The SSA is one of the programmes taking vital role for the successful implementation of the Programme Inputs. Since the researcher presently working as a teacher and having experience in the field and participating more in the programmes. She wanted to know the attitudes of the HMs with regard to the functioning of school complexes.

The Main Objectives of the Study are taken as follows:

- ✧ To know the attitudes of Headmasters towards the functioning of school Complexes in the Visakhapatnam District.
- ✧ To know the Maintenance of Records by Observing the Documentary Evidences.
- ✧ To know the Utilization of Grants for Proper Utilization by the School complexes.

Sample

The researcher selected the sample as follows: The Study is confined to eight school complexes in Visakhapatnam District at the rate of 4 from urban, and 4 from rural area covering both Corporation, Municipal and Mandal Parishad.

Eight effectively functioning school complexes, which consists of eight high schools and 16 primary schools, located in

both urban and rural areas of Vishakhapatnam District.

Tools

The researcher designed and developed a simple questionnaire consisting of 73 items. The tool covered six functional areas to know about the functioning of School Complexes as Information, Resource, Planning, Knowledge, Coordination and Training Centres. The Researcher formulated an Observation/ Interview tool to record the Documentary evidences about the maintenance of records, utilization of grants and also to elicit the information with regard to Functioning of School Complexes.

The Investigator had administered the Tools to the samples of for schools by distributing the questionnaires to the Headmasters / Headmistresses of Primary Schools and observed School Complex activities recorded in Minutes Book, Records, Registers and Utilization of Grants.

Statistical Techniques

The researcher had deployed means and percentages for analytical purposes.

Findings and Conclusions

- The lead schools of school complex did not send information to the tagged schools in time.
- Concentration on academic aspects by the teachers was found to be low.
- Analysis was made on the performance of students based on the CLIP and CLAP.
- Discussions on CLIP and CLAP interventions were effective.
- Computer facilities were used properly
- Library books were used as reference materials.
- Laboratory equipments were not used properly.

- Utilization value of the resources were moderate, it needs improvement.
- The preparation of annual plans by the respective school teachers was made at the school complex level.
- Agenda was not so as expected. It requires strict follow up of Agenda in order to make the teachers to understand the events which are more practical.
- Punctuality of programmes of school complex was encouraging.
- Discussion related to enrolment, drop-out and retention and quality have taken place.
- Suitable measures on monitoring, guidance for quality improvement were undertaken.
- Suitable teaching learning processes were used.
- Organisation of local visit and field trips were not done.
- Discussions have taken place for the maintenance of attractive classroom situation at the school level.
- Subjects related corners were maintained.
- Effective implementation of CLIP and CLAP for the improvement of progressive levels among 'B' grade children was found.
- Action researchers were not undertaken.
- Initiated plans for motivating the parents to enroll the children, reduce of dropout and enhance quality.
- Records and registers were not maintained properly.
- Model lessons given by the resource persons were encouraging.
- Attendance Register, Minutes Book and Visitors Books were maintained well but other records and registers are not maintained properly.
- Stock entries was not found properly.
- No proper maintenance of cash book.
- Grants in the name of contingencies were used for purchase of shelves, chairs, DVD players, Xerox, waterman and sweeper charges.
- Grants allocated for Teaching Learning Material was not used.

Conclusions

- ✧ The role of school complex in the field of Primary Education is vital one. Every school complex is acting as Nodal Agency where important programmes take place for the improvement of Professional Competencies of the teachers.
- ✧ The perceptions of the headmasters and headmistress irrespective of sex, age, qualifications, teaching experience and locality was encouraging and they voiced one and the same regarding the functioning of school complex.
- ✧ The attitudes of primary school headmasters/headmistresses was positive and encouraging towards the functioning of school complex.
- ✧ The role of school complex chairman and secretary is very important.

Educational implications

- ✧ The teachers who are participating in the programmes may also work for the benefit of their respective school and follow the rules and regulations scrupulously. The findings yielded through this study are very encouraging.
- ✧ The role of Supervisor, School Complex Chairmen and Secretary is vital and important in making School Complex's functions more effective and resourceful.

Suggestions

- Each and every school complex should act as Resource Centre. It needs to give guidance to all member schools to become an effective in centre.
- Teachers and School Complex Chairman and Secretary should also analyze the data along with the academic performance of the students.

Grants

- Grants were adequate.
- All school complexes received the grant at Rs.5900.

- There is a need for Orientation Programmes to school complex Chairmen and Secretaries for the enhancement of the teachers professional competencies.
- The books which are supplied under various schemes should make use to the benefit of students.
- Every School Complex Chairman and Secretary should take lead in making the Teachers participate more frequently in the academic programmes.
- Coordination of supervisory team or authorities and higher officials needs more attention for making the school complex functioning more effective.
- The authorities must observe and take up safety measures for more participation and discussion on academic issues.
- Discussions should take place in exploring ways to make their class rooms more attractive and more lively.
- Orientation or discussions should take place on the modern concepts or recent trends on pedagogical processes.
- More number of analytical applications should be followed in analyzing the progressive levels in depth and take up safety measures on the B grade children.
- More number of Action Researches relating to classroom applications should be conducted.
- Subject experts and academicians are to be invited to improve the professional competencies.
- The Supervisor or the Authorities may take initiative and see that every school complex should function well and effective.
- Supervisors may also monitor the School Complexes and give proper guidance, suggestions and also act as Role model and see that every teacher should become as Role Model through these school complexes.
- Teacher participation must be made compulsory to make the programmes qualitative and effective.
- Need for regular monitoring and guidance of the higher officials.
- Monitoring Staff should visit and stay in the School Complex schools to give suggestions academically for the enhancement of quality.
- Grants allocated for School Complexes should be utilized only for the items prescribed in the Guidelines under three heads and not for any other School Requirements.

DEVELOPMENT AND VALIDATION OF SOFTWARE FOR CHEMISTRY PRACTICALS AT UPPER PRIMARY LEVEL

S. Vincent De Paul

Senior Lecturer & Head, Planning & Management Branch
District Institute of Education & Training, Pudukkottai

Introduction

DIETs, founded during the late 1980s, and early 1990s, are expected to play a key role to achieve Universalization of Elementary Education of quality. SSA, launched in 2001 has been a strategic and coherent response to achieving UEE within this decade. The partnership between DIETs and SSA form a symbiotic relationship and the synergy has given a strong impetus for realizing UEE goals. DIETs have all along introduced a number of quality interventions in improving classroom process. With the advent of ICT, the DIETs have experimented with many innovative and effective instructional designs and made Educational Technology a reliable, relevant and a timely intervention. In addition to conventional audio and video programmes, DIETs strive towards transforming all schools into ICT -rich environments by encouraging and facilitating the use of ICT -enabled methods of teaching -learning and making it inherent and embedded in the teaching learning process of teachers.

Need for the Study

Since SSA has started introducing computers and computer education in schools across the state, the DIETs want to make them as integral part of a new pedagogy, not just an add-on, but a value addition.

Realizing that programming for built-in interactivity is the need of the hour, this study under X Five Year Plan for the year 2005-06 has aimed at developing and validating a multimedia interactive software for doing chemistry practicals in virtual laboratory in middle schools where paradoxical situation is likely to arise with deep penetration of computers and inadequacy of laboratory equipments and materials. Moreover a

paradigm shift is taking place with teacher becoming a facilitator. In this context, the development of software for chemistry practicals provides students with the chance for learner autonomy as well as space for collaborative learning and teachers with new role of facilitators to enable students 'construct' their own knowledge in practical chemistry.

Objectives of the Study

- To identify the chemistry practicals that could be taught and learnt through computer,
- To develop the software for doing chemistry practicals in the upper primary classes
- To validate the software for doing chemistry practicals in the upper primary classes

Methodology

Methodology involved three stages namely identification of practical units in chemistry, development of software and its validation in schools. For validation purpose, a perception scale and observation schedule was prepared. The study was conducted in selected schools including TELC Middle School, Machuvadi, Pudukkottai, Municipal Middle School, Thiruvappur, Pudukkottai, Government Girls' Higher Secondary School, Keeranur and Punitha Sagayamatha Middle School, Keeranur.

Development of Software

Two units from VI Standard, seven from VII Standard and another seven from VIII Standard were identified for chemistry practicals by the analysis of science texts at upper primary level. Altogether 16 practical units were selected for virtual chemistry

practicals. The research team, in consultation with technical staff of Creative Computers, Tiruchirappalli, developed computer software for 12 practicals comprising standards VI, VII and VIII. Then the developed software was demonstrated in study schools and validated with a sample of teachers and students from these schools.

Development of Tool for the Study

In order to validate the software, a perception scale for teachers and students with varying number of items based on a tool developed and standardized by Elissavet and Anastasios from the University of Macedonia, Greece (2005) was used. An observation schedule was also prepared by the researchers for error analysis.

Validation of the Software

The developed software and tools were reviewed by university professors and DIET faculty and commented positively. Their suggestions were incorporated in the software and tools. Then the software was demonstrated to a sample of 59 teachers in groups. Then they were administered the perception scale to elicit their responses on different dimensions of software such as Instructional Theories, Pedagogical Parameters, Interactivity, Screen Design, Organization and Presentation of the Content, Technical Support and Update Process and Evaluation of Learning. Almost all the dimensions have had the mean percentage perception score above 70% with the Screen Design scoring the highest (84.55%). Data related to teachers' perception on the software were further subjected to stepwise regression analysis and the R^2 value indicates that 100% of the variance in the software perception score could be predicted from the dimensions namely Interactivity &

Screen Design, Evaluation of Learning and Technical Support & Update Process.

Similarly, the Perception Scale with relevant items was canvassed on students. Their perception score indicates their high rating of the software with the perception mean percentage score of 88.23, which is found to be higher than that of teachers.

All the required components of the software, most importantly, Instructional Theories, Pedagogical Parameters, Interactivity, Screen design, Organization & Presentation of the Content and Evaluation of Learning have been well taken care of in the developed software as the Students' Perception scores revealed. Multiple regression analysis of Students' Perception Score has again proved that their perception could be predicted by the above mentioned components.

Further the software was subjected to empirical validation, done with the help of observation schedule developed by the investigators. The software was evaluated on the basis of error rates. The overall error rate analysis across standards shows that the success rate is 99.97 % indicating that the software is highly valid. The software was finally assessed on the basis of students' performance in Criterion Test. The overall error rate and success rate are 4.87% and 95.12 % respectively.

Conclusion

Thus from perspectives of Teachers and Students' Perceptions and Error Rate Analysis, the software has been found to be highly valid. So the software may be used in all Middle Schools in Tamil Nadu to ensure quality Elementary Education, particularly Science education.

A STUDY OF PARENTAL INVOLVEMENT WITH RESPECT TO CERTAIN SELECTED VARIABLES AMONG THE UPPER PRIMARY STUDENTS OF PUDUKKOTTAI DISTRICT

S.Thangarasu

Lecturer, DIET Pudukkottai

Introduction

It is widely recognized that if pupils are to maximize their potential from schooling they will need the full support of their parents. Many studies have clearly demonstrated that family involvement encourages student achievement or other positive behaviors and attitudes that increase success in school (Boyer, 1999; Olmscheid, 1999). By exchanging information, sharing in decision-making, helping at school, and collaborating in children's learning, parents can become partners in the educational process. When parents/families are involved in their children's education, children not only perform better in school, but schools improve as well (Pape, 1999).

Policy makers at all levels are increasingly aware of the crucial role that families and the community play in the education of our children. Parents/families and schools should communicate with each other about school programs, discipline codes, learning objectives, and children's progress. This sharing of information can be accomplished through newsletters, school handbooks, parent-teacher conferences, open houses, informal messages, and telephone calls. Schools can work through community-based organizations to develop relationships with parents who previously have not been actively involved in school-parent activities (McDonald & Frey, 1999). Schools can reach out to link families to needed services and community organizations which, in turn, can strengthen home environments and increase student learning. McDonald and Frey have found that parents who are frequently involved in their children's experiences, behaviors, and attitudes towards school can influence their children's views of personal educational

attainment. Educators have long suspected that parents' past experiences in school settings would have an effect on the academic socialization of their children. Although mothers are more likely to be the care givers involved in their children's education, recent research conducted by the National Center for Educational Statistics showed that children do better in school when their fathers are involved in their schoolwork, whether their fathers live with them or their mothers are also involved (Boyer, 1999). Though there are many studies on the parental involvement, it has to be revisited then and there in order to maintain its sustainability. Hence the present study entitled A Study of Parental Involvement with respect to certain selected variables among the Upper Primary Students of Pudukkottai District was carried out by the investigator.

Objectives of the Study

The objectives of the present study were :

- To study the parental involvement in improving the performance of upper primary students of Pudukkottai district
- To find out whether there exists any significant difference in the parental involvement of upper primary students of Pudukkottai district with respect to their type of school, standard of studying, Gender, Community, Fathers' educational qualification, Mothers' educational qualification, fathers' income, mother's income, father as government servant, mother as government servant, father's job and mother's job

Tool Used

In order to realize the above objectives a tool was developed by the investigator S. Thangarasu and Dr. S. Vincent De Paul by following the steps namely, collection of items

from different sources, getting expert opinion, administration of items, item analysis and factor analysis. Eight factors were emerged and the final tool consists of 35 items.

Sample

The final pruned and validated tool was administered to 540 students of VI, VII and VIII standard students of Puudkkottai District. 525 responded in full format and hence the sample for the present study was 525. The students were selected randomly from different types of management, locale, different types of families covering academic, social and economic levels. The distribution of sample is as given below.

Findings and Discussion

The findings of the present study show that students differ in their perception on their parent involvement in their studies with respect to their schools. The parent involvement is maximum in Panchayat Union Middle schools and minimum in Government High Schools. Hence steps should be taken to increase the parental involvement of students studying in Government High schools of Pudukkottai District.

The students differ in their perception about their parental involvement in their studies with respect to the standards they are studying. The parental involvement is maximum among the students of VIII standards and minimum among the VI standard students.

The students do not differ in their perception about their parental involvement in their studies with respect to gender. This shows indirectly now parents treat both children as equal. Similarly the students do not differ in their perception about their parental involvement in their studies with respect to their community. This shows indirectly now parents treat both children as equal and all community have put equal weightage to their wards' education.

The students differ in their perception about their parental involvement in their studies with respect to their fathers' educational

qualification. It is interesting to note that parents having no educational background and fathers having Master Degree have not evinced keen interest in their wards' education. But fathers having under Graduate degree have more involvement on their children's' education. In the case of mothers the parental involvement is directly proportionate to their educational qualification. Illiterate mothers have low parental involvement and mothers who have master degree have high parental involvement. This proves that when mother is educated the whole family is educated. This finding indirectly stresses women's education for achieving universalization of elementary education.

The students differ in their perception about their parental involvement in their studies with respect to their fathers' income. It is again interesting to note that fathers having low income and fathers having high income have not shown their involvement towards their wards' education. But fathers having income yearly Rs. 25000 to 50000 have more involvement on their children education. The students differ in their perception about their parental involvement in their studies with respect to their mothers' income. In the case of mothers, the parental involvement is directly proportionate to their income. Low income mothers have low parental involvement and mothers who have high income have high parental involvement. This finding indirectly shows that mothers continue to share their responsibility of children though they have high income. Male Government servants have more parental involvement on their wards' education than others. The female government servants and others do not differ in their parental involvement.

The students differ in their perception about their parental involvement in their studies with respect to their fathers' occupation. Agricultural parents have low parental involvement and teacher as parents have more parental involvement on their wards' education. The students differ in their

perception about their parental involvement in their studies with respect to their mothers' occupation. Semi-skilled parents have low parental involvement and government servant as parents have more parental involvement.

The students differ in their perception about their parental involvement in their studies with respect to their locality. This shows that both rural and urban parents have demonstrated their involvement in their wards' education.

Conclusion

This study reveals that students differ in their perception on parental involvement in their

studies with respect to their type of school, standard, fathers' educational qualification, mothers' qualification, father's income, mothers' income, type of job, nature of government service, and do not differ with respect to gender, community and locale. Hence in order to achieve universalization of Elementary education, awareness programmes should be given to parents about their involvement. The programme should target especially semi-skilled, low-income, high-income family, illiterates and even highly educated fathers.

DTERT, Chennai

COMPUTER LITERACY AMONG THE ELEMENTARY SCHOOL TEACHERS OF PUDUKKOTTAI DISTRICT

G. Murugan

Lecturer, DIET Pudukkottai

Introduction

The 21st century is the era of information and communication technology. The style of imparting knowledge by the teachers to the students needs a drastic change. Computer enables the teacher to deliver the content material effectively. Merely having a good software and hardware will not help the teachers to achieve their classroom goals attainment. It needs how much literacy teachers have towards hardware and software. Since computer plays a significant role in the communication processes the teacher should have strong computer literacy and its educational application software. Hence the need for the present study entitled 'Computer Literacy among the Elementary school teachers of Pudukkottai District arose.

Objectives of the Study

The objectives of the present study were:

- To find out the computer literacy of elementary school teachers of Pudukkottai District
- To find out if any significant difference in computer literacy among the elementary school teachers of Pudukkottai district with respect to their Age exists.
- To find out if any significant difference in computer literacy among the elementary school teachers of Pudukkottai district with respect to their Gender exists.
- To find out if any significant difference in computer literacy among the elementary school teachers of Pudukkottai district with respect to their Locale exists.
- To find out if any significant difference in computer literacy among the elementary school teachers of Pudukkottai district with respect to their General Educational Qualification exists.

Tool Used for the Study

To achieve the objectives of the present study, the tool developed by Elkin and Odd and modified by Dr. S. Vincent De Paul and Dr. T.K.Swatantra Devi was used. This tool has five dimensions viz., General, Word Processing, Spread Sheet, Database and Classroom Application.

Sample for the Study

The tool was administered to randomly selected elementary school teachers (159) of Pudukkottai District. The sample consisted of 58 male teachers and 101 female teachers. The distribution of the sample was as given below.

Findings and Educational implications of the Study

Elementary School teachers of Pudukkottai have only 45 % mean computer literacy score. However Elementary School teachers of Pudukkottai have 50 % of general computer literacy but they have only 40 % database literacy and 40% computer-classroom application literacy. The low level computer literacy indicates they have a little exposure only to computer. This findings needs to be addressed and appropriate in-service training programmes need to be arranged.

Elementary School teachers of Pudukkottai differ in their computer literacy with respect to their age. The Elementary School teachers of Pudukkottai who are 37 years of age and above have low level of computer literacy than Elementary School teachers of Pudukkottai who are below 37 years of age. However Elementary School teachers of Pudukkottai do not differ with respect to gender in their computer literacy. But male teachers have more spreadsheet literacy than that of female teachers.

Elementary School teachers of Pudukkottai do not differ in their computer literacy with respect to locale. But in the dimension classroom application, as expected, urban teachers have more computer literacy than rural teachers. Elementary School teachers of Pudukkottai do not differ in their computer literacy with respect to their general education qualification, and professional qualification. Elementary School teachers of Pudukkottai who have 11 years and above as their experience, have low level of computer literacy than teachers who have less than 11 years of teaching experience in all the dimensions as well as total, except the dimension classroom application. This shows that teachers having more experience are also willing to apply computer applications in the classroom.

Elementary School teachers of Pudukkottai of Pudukkottai District do not differ in their computer literacy with respect to marital status. However Elementary School teachers of Pudukkottai differ in their computer literacy with respect to computer training attended. Elementary School teachers of Pudukkottai who have attended computer training have

more computer literacy than who have not attended. Elementary School teachers of Pudukkottai who have experience of using computer have more computer literacy than teachers who have no experience. Elementary School teachers of Pudukkottai do not differ in their computer literacy with respect to number of training programmes other than computer attended, and their designation. These findings are worth ones. This shows the importance of imparting computer training to the teachers of Pudukkottai District.

Conclusion

Thus the present study reveals that elementary school teachers of Pudukkottai District have low level of computer literacy, do not differ in their computer literacy with respect to gender, locale, general education qualification, and professional qualification marital status, to number of training programme other than computer attended, and their designation and differ in their age, teaching experience, computer training attended, and experience of using computer. These findings indicate that elementary school teachers of Pudukkottai District need computer training.

ROLE OF DIET FOR QUALITY ASSURANCE IN SCHOOLS

Dr. A. Radhamani

Lecturer, DIET, Chennai

Quality has been one of the major concerns of education across all levels. The progress of the nation depends on the quality of their citizens. Government of India aims to provide quality elementary education to the masses. At the national level NCERT works hard to maintain quality. At the state level DTERT, DIETS and SSA are working to maintain quality. DIETS are specially formed for quality maintenance at the elementary level. Undoubtedly they play their major role directly or indirectly to maintain quality. This paper analyses in detail about the various roles played by the DIETS for the quality assurance in schools. The significance of the present study is three-fold. They are about focus of the DIET activities on quality, expectations of DIET from the teachers for quality education, various areas in which DIET plays its role for quality assurance.

Focus of the DIET Activities on Quality

- Focus on the learning components like teachers, students, subject information and techniques.
- Stress principles of effective learning by giving focus on learning by doing and individual differences in learning activities.
- Show ways and means to create and sustain interest and attention in the class.
- Stress the need of forming correct concept formation while transmitting information.
- Clarify that machines, materials, media, men and methods are interrelated to fulfil the specific objectives.
- Want to develop positive attitude on Teaching.
- Explain the need of organisation of learning situation by controlling environment, media and methods, developing good evaluation techniques to test the learning outcomes.

- Fulfil the objectives of ET, like transmitting information, practicing specific skills, provision of feedback, improved range of learning material etc.
- Develop methods and techniques for effective teaching learning.
- Stress essentiality of four phases of teaching pre-active, inter-active and post-active and reflective-phases of teaching.

Expectations of DIET from the Teachers for Quality

- Memory, understanding and reflective type of teaching.
- Having in mind the clear objectives of teaching.
- Proper class room management.
- Following maxims and principles of teaching.
- Child centered teaching.
- Democratic, humanistic, dynamic forward and progressive looking, diagnostic and remedial and careful planning.
- Having sound knowledge about philosophical, sociological, psychological and scientific basis of education.
- Developing critical thinking.
- Managing instructional environment, diagnose students, using the available resources.
- Finding remedies to increase achievement of disabled students.
- Developing positive attitude in learning.
- Commitment in Teaching.
- Stress telling, showing and doing type of teaching.
- More interactive type of class.
- Checking previous knowledge of the topic taught.

- Enough feedback and follow up work.
- Multisensory Multi sensory approach in Teaching
- Diagnosing students and planning for remedial teaching to the low achievers.
- More group work and suitable TLM
- Keeping good relationship with community and parents.

Various areas in which diet plays its role for quality assurance

Preparation of Text Book:

Best Text Books are most essential for good quality. For I to VIII standard and Diploma in Teacher Education, the good quality text books are prepared by DTERT.

Preparation of Training modules:

Modules for I to VIII Standard Text books and other in service training modules in various fields are prepared to give training to the teachers. Copies of it are also given to the teacher at the time of training.

Establishes good relationship:

Good relationship is maintained with elementary school teachers, Head Masters and other educational officers, for all the better educational activities of the DIET.

Conducts work shop:

DTERT conducts workshop for the development of evaluation tool, TLM, preparation of Text books and training modules.

In service training:

DIET conducts in service training in school subjects and also in various fields like, theme specific, emotional intelligence, spoken and written English, reading skills, minimum level of learning, multi grade teaching, lab skills, gender sensitization, guidance and counselling, communication, road rules, remedial teaching, usage of A.V. Aids, computer training, Joyful, activity based and self learning methods of Teaching, evaluation techniques, crises, total health programme,

minor games, capacity training to TTI Teachers, village education committee, Yoga, women education competency based teaching etc.

School Visit:

The DIET faculties were asked to visit some of the schools in their district. They used to visit the school activities from prayer to end of school hour. A format was sent by DTERT in that the aspects like atmosphere, security equality, method of teaching, infrastructure, sanitary conditions etc. are mentioned. The reports are sent to DTERT. Doubts of the teachers are also cleared at the time of the visit.

Action Research:

DIET faculties are asked to do action research in curricular and co-curricular areas. The results are disseminated to the elementary school teachers.

Lab area schools:

For each DIET faculty one school is allotted. He/She must visit the school half a day per week to give his / her suggestion on curricular, co-curricular and other aspects, to improve quality of the school in all the ways.

Projects:

Chances are given to the DIET faculties to do projects in curricular co-curricular and other school related areas to improve the quality of elementary education.

Compilation of Research works:

In each district, the DIET faculties are asked to collect research findings from M.Ed., M.Phil. and Ph.D. thesis, from the education colleges and universities in that District. The purpose of this compilation work is to utilise these research findings in the class room to improve the quality.

CRC visit:

DIET faculties are asked to visit the CRC centres. Reports are collected and sent to DTERT. At the time of visit suggestions of the

faculty are also given in the CRC centres for further improvement of the quality.

Satellite programme:

Satellite programme are given in various subjects by the DIET faculties. DIET students and school teachers are asked to see these programmes and chance is also given to the viewers to clarify their doubts. This will be helpful to the teachers for better teaching.

Script writing for TV programmes:

After getting training from DTERT on audio or video scripts writing the trained faculties of the DIET give training to them in the art of script writing for the TV programme.

In short we can say that from syllabus framing to evaluation, DIET and DIET contribute their roles to maintain good quality in schools at the state level.

DIET, Chennai

SYSTEMIC REFORMS

N. Kalaiarasi and S. Anantha Soruba Shanthi

Lecturer, DIET, T. Kallupatti

Introduction

In the field of education in India, emphasis has been laid especially in the last decade on the quality and excellence of Teachers Training and Educational Research. The National Council of Educational Research and Training (NCERT) as an apex resource institution assists and advises the central and the state governments on academic matters relating to school education and teacher education. Since the school curriculum, syllabi and instructional materials form the basis of teacher education programmes, the NCERT has the greatest task of formulation and organisation of teacher education programmes. So certain systemic reforms are necessary to make teaching training more effective and suited to the changing scenario in the educational system.

Need for Reforms

The best scheme of education could become a bad scheme if the teachers handling it are bad; even so a bad scheme can, in practice be made a good one, if the teachers are good. The quality of an educational system depends on our securing a fair number of well-educated well equipped and well contented teachers. We must be able to attract talented and well balanced young men and women who would take up their work with zeal, devotion and enthusiasm for the teaching profession. Discontented teachers who have no interest in their work and who do it haphazardly are a danger to the nation. They would have adverse effect on millions of children and thus affecting our national cheer and efficiency. So this paper presents some systemic reforms that could be incorporated in our Teacher Training Institutions.

Other Countries

In U.S.A. the minimum requirement for admission to teacher training college is graduation and 2 or 3 years of teaching in

schools is a standard requirement for teaching. In Germany, primary school teachers undergo a great process. After the core examinations oral examination follows; thesis, report and trial lessons are discussed and the successful candidate is awarded the certificate of qualification to teach in the primary school and made eligible for permanent appointment.

In France, it is the duty of the departmental council to decide what teachers will be required in 4 years later and so fix the number of places that will be open to public competition in that given year.

In Belgium, the teacher training is most thorough and modern in outlook and aims at providing a course which will not only complete the education of the student but also make him a knowledgeable citizen and therefore a proficient teacher.

In Norway, entry to the four-year training college is on the basis of a written and oral examination designed to test a candidate's maturity and knowledge of the basis primary school subjects.

What is the prevailing condition in India and especially in Tamil Nadu. Of course, meritorious students securing 1000 marks and above are admitted in the DIETS. But are they really inclined to the teaching profession? Have they attained mental maturity to guide and counsel the children of the primary classes?

REFORMS

Age

The personality of the teacher is bound to have a great effect on the learners of the primary classes, who are only the beginners. So the teachers have to be the role models with balanced personalities. The teachers should be competent enough to guide the children inside and outside the school premises. But the

students who are admitted for the DTE course are only 17 years old and even after 2 years training, they only teenagers are greatly influenced by the media and technology in the negative. Everyday news expresses the prevailing condition of the teenagers turning drug addictions, extremism and so on. In such a situation, the teenagers themselves need guidance and counselling. So the students admitted for DTE course should be above 20 years.

Practice Teaching

The present ABL system introduced in the primary classes of Tamil Nadu needs a closer observation and great care in its implementation. In such a critical situation, what is the mode of practice teaching sessions?

Almost all training institutes should have primary schools attached to them, so that the practical session for practice teaching and observation of teaching could be carried out easily and systematically. But what is the real condition of our Training Institutes. Only a few training institutes have primary schools attached to them.

As far as the practice teaching session is concerned, it would be better if the students of DIET could go to school during the afternoon session, after getting the concept of competencies clear at the DIETS in the morning session. It would be easier, if only competency for each subject could be highlighted during the morning session at the DIETS. The same competency, the methodology, TLM and SLM preparation and execution could be carried out in the schools during the afternoon session.

Duration

Moreover the academic year for the DTE course does not coincide with the academic year of the school, that is from June to April. So the admission for DTE course should be regularised at the first instance.

Similarly, the teenagers have their own psychological problems pertaining to their age.

So the study of psychology for teaching is mere cramming of only points from the course book and no practical exposure to the problems of the learners of the primary classes.

Personal skills

Mostly in a mixed class, girls from rural areas and who had their schooling in girls schools, study with the boys from boys schools. Hence there arise emotional problems. Programmes are needed to develop Emotional Intelligence among DTE students.

Teacher education for preparation of Universalisation of Elementary Education would require special consideration in dealing with students of socially disadvantaged groups and minorities and special children. Great patience with understanding is needed on the part of the DTE students, who enter the primary schools. So special course on guidance and counseling should be given to the DTE students.

Communicative Skills

The present educational system demands a communicative approach and the DTE students have only one paper in English. So mere pass in the English examination is not sufficient to acquire the communicative competence in English. So language labs should be setup in the Training institutes. Practice in English language skills should be given more emphasis.

Curricular skills

There should be a major shift at the upper primary stage in the teaching of sciences and social sciences. Each subject has to be taught as an integrated subject. Teaching them as integrated subject requires special attention and orientation in teacher education programmes.

Ethical Skills

Another challenge is the teacher's role in inculcating values among children. Since every teacher is envisaged to be also a teacher of values, student teachers have to be oriented

for value education and developing different strategies for inculcation and promotion of values among school children. Student teachers need to acquire competencies to draw community resources to facilitate more effective functioning of schools, Regular diagnosis and timely remediation must be encouraged to help achieve mastery of basis skills pertaining to various subjects of study and art of healthy and productive living.

Conclusion

To conclude, emphasis has to be on change in attitude and acquisition of skills apt for handling activities and making them joyful for young learners. So certain changes in the admission, age requirement. educational qualification could bring about the expected outcomes in the general stream of primary education.

DTERT, Chennai

CHANGING ROLE OF TEACHERS IN PRIMARY SCHOOLS

S. Manivel* and J. Inbaraj**

*Lecturer, DIET, TIRUR, **Assistant Professor, DTER, Chennai

Tamil Nadu has always been a pioneer in trying innovative practices. What was started as an experiment in corporation schools of Chennai has now been implemented throughout the state through Sarva Shiksha Abhiyan. The Activity Based Learning is a new self-learning strategy, which addresses many classroom issues effectively. It helps teachers to tackle multi-grade teaching situation and multi-level students in the same class. Besides it addresses the individual learning needs of children. Each child has a different pace of learning and ABL gives wide scope for it. ABL is most the appropriate strategy, which encompasses learning, teaching and self-evaluation without hurting the pride of the child.

Features of Activity Based Learning

- The Learning Ladders provide structure to the curriculum and allow every child to proceed at a self-selected pace.
- The need for an examination at the end of the school year is made redundant in this system.
- Each child's self-esteem is trusted and nurtured.
- Daily attendance process is made child-friendly. (Each child marks his/her own attendance)
- Discipline is intrinsic to the material and internalized by the children.
- Mastering of a skill is an individualistic spontaneous exercise.
- Order and structure in the materials seem to result in systematic habits in the children.

Uniqueness of Activity Based Learning

- ABL teaching method, involves learning through listening, thinking, understanding, planning, communicating, interacting, cooperating, playing all in joyful manner. It develops effective relationship between the

teacher and students. It is a comprehensive action oriented programme. It is aimed at bringing out the hidden skills and to improve knowledge and all round development of children.

- In this methodology, various competencies in the textbook have been split into activities, parts and units. Each unit is called a milestone. These milestones are arranged in structured and logistic sequences from basic, to advanced level. The cards and maths kits which are being used have been devised by experts. No child can move to the next higher level of learning unless he masters the lower level. Also, children learn at their own pace. This methodology addresses multi grade and multi level teaching. Inbuilt evaluation mechanism is also incorporated in the system. In this methodology, the competency level of each individual child in a particular subject is explicitly known.

Classroom Arrangement

- Low-level blackboard.
- Tray for cards, shelf etc...
- Logo - Explanation.
- Ladder - explanation.
- Group activities (grouping Knowledge)
- Model classrooms - observation.
- Teacher's involvement and their knowledge in this of knowledge transfer.
- Student's involvement in receiving the knowledge.
- How the discussion is going on in all subjects in the classroom.
- Achievement charts (to know the level of the students in all subjects).

Teacher - A Facilitator

Under ABL, teacher becomes an enthusiastic observer of the miracle of learning. Writing on the black board is no more the sole right of a

teacher. Low level black boards give opportunity to every child to write or draw on his own board. Teacher just goes around and observes learning of students and helps only if asked. Wherever and whenever students love the challenges, they are just let to learn through their mistakes and from their peers.

Self Paced Evaluation

Each child knows where he/she stands. Students evaluate their own mastery of reading, doing sums and ability to read. The water tight rigid class feeling is now gone. A student studying in standard V may be trying to learn some competencies, which are in standard III. But the self-realization has helped children improve their skills faster.

Wide Coverage

Children who are studying in ABL schools are performing extremely well in all the three

subjects Tamil, Maths and Science. Based on the success in Chennai schools and the rural 4120 schools, this method is being up scaled to all 37,453 government and aided primary and upper primary schools in 1st-4th standards in the year 2007-08.

Conclusion

As an offshoot of ABL, Active Learning Method is being tried in upper primary classes where students apply mind-mapping strategy to correlate ideas with concrete things they can remember. ABL is now widely appreciated by the press and common people as an effective strategy. ABL has not limited the role of the teacher. In fact, it has redefined the role of the teacher and increased his accountability to the children for whom the entire schooling system works.

DTERT, Chennai

- The Learning, I, authors provide strategies to the curriculum and allow every child to proceed at a self-selected pace.
 - The need for an examination is removed as the student's progress is monitored in the system.
 - Each child's self-esteem is raised and nurtured.
 - Each student's progress is made child-friendly (each child makes his/her own attachment).
 - Discipline is inherent to the material and internalized by the children.
 - Mastering of a skill is an individualized spontaneous exercise.
 - Content and structure in the materials seem to result in systematic habits in the children.
- Advantages of Activity Based Learning**
- ABL teaching method involves learning through listening, thinking, understanding, planning, communicating, creating, evaluating, playing all in joyful manner. It develops effective relationship between the

A STUDY OF EMOTIONAL INTELLIGENCE OF TEACHER TRAINEES AT PRIMARY LEVEL

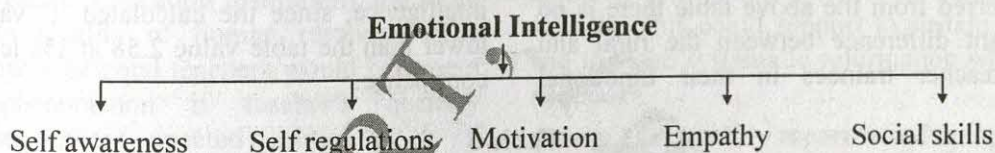
K. Govindarajan

Lecturer in Education, SASTRA University, Thanjavur

Although a person's feelings cannot be observed directly by others but they can be inferred from his overt behaviour and verbal report of his introspection, as no one can doubt the reality of emotions as conscious experience. To produce an emotion, a stimulus situation must be related to past experience and it has implications in the future. In an organization where an employee feels the presence of a threatening situation, he may handle it in either of the two ways. He may be confident of his ability to handle the situation and may see it as a challenging opportunity to prove himself or experience fear or dread. Thus, our appraisal of situation and subsequent emotions are strongly influenced

our own estimate of capabilities. The emotions aroused depend not so much on the event themselves, as on how they are appraised.

Emotional Intelligence enables one to learn to acknowledge and understand feelings in ourselves and in others and that one appropriately responds to them, effectively applying the information and energy of emotion in daily life and work. Emotional Intelligence involves the ability to perceive accurately, appraise, and express emotions; the ability to access and/or generate feelings when they facilitate thoughts; the ability to understand emotions and emotional knowledge and intellectual growth.



Objectives of the Study

- To find out the level of Emotional Intelligence of the Teacher Trainees
- To compare the level of Emotional Intelligence between Teacher-trainees of rural and urban Teacher Trainees
- To compare the level of Emotional Intelligence between Government and Management Teacher Training Institutes.

Hypotheses of the Study

Sample

A sample of 120 teacher trainees (57 male and 63 female) from DIET, TTIs, Puducherry was selected using stratified random sampling technique. One District Institute of Education (DIET) and five private teacher training institute were selected for the study.

Tools

In the present study, the researcher used 'Emotional Intelligence Inventory for Teacher Trainees'. The questionnaire was prepared and validated by Mr. S. Balasubramanian M.Phil candidate (Aug. 2003), to assess the Emotional Intelligence of teacher trainees. It exactly measures the level of Emotional Intelligence of the subject as the tool's Validity and Reliability were properly established. The questionnaire comprises of 50 items. In Emotional Intelligence test only one correct answer is to be selected by a teacher trainees, for each question from the different alternatives given under each question. '1' mark was given for each correct answer and '0' for each incorrect answer. Thus the possible range of the scores obtained by an individual will be '0' to '50' marks.

Analysis and Interpretation

In the present study, Mean and Standard Deviation were calculated from the students'

scores obtained in "Emotional Intelligence Inventory". To analysis the data, 't' test was adopted.

Table-1

Male and female teacher trainees do not differ in their emotional intelligence

Category	N	Mean	SD	't'	Significant level
Male	57	24.23	8.07	1.15	Not Significant
Female	63	25.86	7.49		

It is inferred from the above table that there is no significant difference between the male and female teacher trainees in their Emotional

Intelligence, since the calculated 't' value is lower than the table value, 2.58 at 1% level of significance. Hence null hypothesis accepted.

Table-2

Rural and urban resident teacher trainees do not differ in their emotional intelligence

Category	N	Mean	SD	't'	Significant level
Rural	54	25.22	7.88	0.17	Not Significant
Urban	66	24.97	7.76		

It is inferred from the above table there is no significant difference between the rural and urban teacher trainees in their Emotional

intelligence, since the calculated 't' value is lower than the table value 2.58 at 1% level of confidence.

Table-3

Government and management institutions teacher trainees do not differ in their emotional intelligence

Category	N	Mean	SD	't'	Significant level
Government	20	32.55	2.26	9.84	Significant
Management	100	23.59	7.64		

The table shows that there is significant difference between government and Management Institutions teacher trainees in their Emotional Intelligence, since the calculated value is greater than the table value, 2.58 at 1% level of confidence. Hence the null hypothesis is rejected. Thus, there is no significant difference between male and

female teacher trainees in their Emotional Intelligence. There is no significant difference between Rural and Urban residence teacher trainees in their Emotional Intelligence. There is significant difference between Government and Management Institutions teacher trainees in the Emotional Intelligence.

QUALITY ASSURANCE IN SCHOOLS

L. Uma* and S. Chandrasekaran**

*Junior Lecturer, DIET, Krishnagiri, **Teacher, GHS, Kundarapalli

“The education, which does not help the common mass of people to equip themselves for the struggle for life, which does not bring out strength of character, a spirit of philanthropy and the courage of a lion is not considered to be real education.” - Swami Vivekananda

The term quality education is to be treated as ‘Quality Teaching’ i.e. education attains quality only through good teaching qualities. So, teacher education is to be focused more in this context.

Nowadays, new entrepreneurs who have no understanding and experience or who have no exposure to education scenario, run most of the teacher education institutions only for profit. As quantitative measures increase in TEI (Teacher Education Institution), the result is Less Quality of human resources. The availability of good teachers would become a rare phenomenon if teacher’s quantity increases without expected qualities.

The Teacher Education and the School Environment

If we serious about improving the quality of school, i.e., the basic education, we have to focus on:

1. The Teacher Education (pre-service and in-service)
2. The School Environment

Focus 1

The present system of Teacher Education neither addresses the reality of quality nor the hurdles in the starting of one’s career. When the teacher education system depends on assessment records and notebooks, they cannot experience the societal needs. Practice Teaching and observations do shelter under scam / scandalized roofs in most of the institutions. They are not particularly exposed to illiterate, under privileged rural mass etc. to

identify the picture of real issues behind formal schooling.

Focus 2

Since effective teachers constitute the most valuable human resources for school, the teaches should have a thirst to become a good teachers. After trained in content, they should be able to use the available reliable resources to draw the attention of the children. Understanding the socio-economic conditions of the children and making his/her profession as a mission are the most immediate requirement for quality schooling.

Preparation of Self-Appraisal Report

After making a concern over the above said issues it becomes mandatory to prepare a quarterly self-appraisal report by the heads of schools. This could support to sustain quality and to make systematic reformation whenever necessary.

A term end/monthly report based on appraisal to maintain would accelerate the existing standards of quality.

Points to Ponder

- ✧ Innovative teaching strategies are to be followed to increase one’s proficiency since his/her inception to the teacher education course.
- ✧ The civic responsibility of a child must be made significant to every child. The tendency of regular and complete attendance is possible only through various teaching technologies and minimum infrastructure facilities.
- ✧ Enrolment does matter for records, but it should materialize the process of retention.
- ✧ Value education has a place in the syllabus or timetable. But no vital step has been taken yet.



❖ SSA's interventions in achieving excellence in elementary education have to be mobilized with full vigour. Failure in mobilizing the quality of those interventions in the class rooms leads to failure in quality schooling.

Conclusion

To conclude, the index of the development and progress of a country is based on the quality

and calibre of good teaching commonly. If the child is the centre of the educational system the teacher becomes the pivot of the educational process.

It is the teachers who translate programmes into actions.

Hence, the quality of the training and education determine the quality assurance in schools.

ATTITUDE OF PRIMARY TEACHERS TOWARDS ACTIVITY BASED LEARNING

G. Manimaran* and Dr. K. Anandan**

*Lecturer in Science, Indra Teacher Training Institute, Tiruchirappalli

**Reader & Head (i/c), Department of Education, Centre for Distance Education
Bharathidasan University, Tiruchirappalli

Introduction

Lecture method has long been the standard method of instruction reinforcing the notion of knowledge as a product to be passed from an instructor to students. Studies of classroom repeatedly show that nearly 90 percent of time in classroom is filled with teacher talk and student note taking. However cognitive researchers argue that knowledge is not simply passed intact from teacher to learner in the learning process, but rather learners actively use knowledge, based on this proposition Activity Based Learning (ABL) has been introduced. Previously this method was introduced and it was successfully run in Corporation Primary and Middle schools Chennai.

Objectives of the Study

The objectives of the study are:

- To analyse the level of Attitude of Primary Teachers towards SSA.
- To analyse the level of Attitude of Male and Female Primary Teachers towards ABL.
- To find the difference between Attitude of Rural and Urban Primary Teachers towards ABL.

iv) To find the difference between Attitude of Primary Teachers who are experienced below 15 years and above 15 years.

v) To find the difference between Attitude of Married and Unmarried Primary Teachers towards ABL.

Sample Selection

The Teachers working in Primary and Middle Schools of Trichy District are the population of this study. The investigators randomly selected 94 Teachers working in Government, Aided Primary and Middle Schools of Tiruchirappalli District administered.

Development of Tool

The investigators developed an Attitude Scale regarding ABL. The four point attitude scale consists of Strongly Agree, Agree, Disagree and Strongly Disagree.

There were 22 statements in the Attitude Scale. The test- retest method was followed to find out the reliability among the Primary Teachers. The obtained 'r' value 0.86 shows that the tool is highly valuable. Thus the Validity and Reliability of the tool was established.

Mean and SD of the Primary Teachers Attitude Score with different Category

Sl. No	CATEGORY		N	MEAN	SD
1.	Sex	Male	32	61.71	9.24
		Female	62	66.29	9.94
2.	Locality	Rural	62	61.80	9.71
		Urban	32	68.09	9.68
3.	Experience	Below 15 Years of Experience	64	64.13	10.27
		Above 15 Years of Experience	30	66.13	8.90
4.	Marital Status	Married	62	64.51	9.98
		Unmarried	32	64.09	9.19
5.	Average		-	64.59	9.61

From the above table it is revealed that the average Mean Score of the attitude score is 64.59 which show the positive opinion of Teachers. Moreover the minimum attitude score is 61.71 and the maximum attitude score is 68.09. This reveals the positive trend of attitude of the Teachers towards SSA.

Data Analysis

Thus the data collected in this manner underwent analysis by using different

statistical technique. Mean and SD were calculated for each Variables to calculate 't' values which is the test of significance of the difference between two means. The following tables contained the data regarding Male and Female, Married and Unmarried Teachers. Teachers belongs to Rural and Urban area schools Teachers who are experienced below 15 years and above 15 years and Marital Status.

Significance of Difference on the Mean Scores of Male and Female Teachers towards ABL

Category	N	Mean	SD	T -test	Remarks
Male	32	61.71	9.24	2.22	SD*
Female	62	66.29	9.94		

* Significant at 0.05 level

It is clear from the table 1.3 that there exists a high significant difference between the mean score at 0.05 levels. It is to be noted that the level of Attitude towards ABL of Female Primary Teachers is higher than the level of

Male Primary Teachers. Hence the stated Null Hypothesis that there is no significant difference between Male and Female Teachers in their Attitude towards ABL is rejected.

Significance of Difference on the Mean Scores of Rural and Urban Teachers towards ABL

Category	N	Mean	SD	T -test	Remarks
Rural	62	61.8	9.71	2.981	SD*
Urban	32	68.09	9.68		

* Significant at 0.01 level

The 't' value 2.981 in the table 1.4 reveals that there exists a high significant difference between the mean scores at 0.01 levels. From the above table, it is to be noted that the level of Attitude towards ABL of Urban Primary Teachers is higher than the level of Rural

Primary Teachers. Hence the stated Null Hypothesis that there is no significant difference between Rural and Urban Primary Teachers in their Attitude towards ABL is rejected.

Significance of Difference on the Mean Scores of Teachers Below 15 years Experience and Above 15 years Experience Teachers towards ABL

Category	N	Mean	SD	T -test	Remarks
Below 15 Years Experience	64	64.13	10.27	0.9657	NSD**
Above 15 Years Experience	30	66.13	8.90		

** No Significant Difference

The table 1.5 shows that the 't' value is not significant at 5% level. From the above table it can be understood that the level of Attitude towards ABL among Primary Teachers who experienced below 15 years and above 15 years are same. Hence the stated Research

Hypothesis that, there is no significant difference between the mean scores of the Attitude towards ABL of the Primary Teachers who experienced below 15 years and above 15 years is accepted.

Significance of Difference on the Mean Scores of Married and Unmarried Teachers towards ABL

Category	N	Mean	SD	t -Test	Remarks
Married	62	64.51	9.98	0.2048	NSD**
Unmarried	32	64.09	9.19		

** No Significant Difference

The calculated 't' value from the above table 1.6 reveals that there is no significant difference at 5% level. It can be understood that the level of Attitude towards ABL among Married Primary Teachers and Unmarried Primary Teachers are similar. Hence the stated Research Hypothesis that, there is no significant difference between the mean score of the Attitude towards ABL of the Married Primary Teachers and Unmarried Primary Teacher is accepted.

The salient findings of the study are:

- i) all the Primary Teachers are having positive Attitude towards SSA

- ii) Female Teachers are having significant positive Attitude towards ABL over the counter part
- iii) the Urban Teachers are having significant positive Attitude towards ABL than the Rural Teachers
- iv) the Attitude towards ABL of more experienced Teachers and less experienced Teachers are found to be similar
- v) no significant difference has been found with respect to Married and Unmarried Teachers.

QUALITY ASSURANCE IN SCHOOLS

R. K. Dhanalakshmi

Lecturer, DIET, Kilpennathur

Development of a country absolutely depends on the quality of its primary education. The quality is at the heart of education and what takes place in class rooms and other learning environments is fundamentally important for the future well being of the learner. In order to ensure the quality in elementary education, it is possible to minimize the dropout rate, to raise level of learning and achievement, to provide for adequate school infrastructure, regularity of teacher, funds, creating awareness among village people, to develop positive attitude towards girls education, to make use of community participation. Even after 60 years of independence, we could not achieve 100% literacy in the nation. So, it is highly important that the above-mentioned factors have to be considered for quality of education in schools.

Primarily three key interrelated issues were identified as the curriculum and learning materials, teachers and teaching, and community participation. Also the highest priority is to be given for the following issues:

- Equality and easy accessibility
- Unburdening and stabilizing, values based curriculum
- Effective teaching learning materials, appropriate methodology and practices and evaluation
- School infrastructure and the basic amenities
- Class room environment, empowerment of teachers
- Community participation as partners
- Girls education
- Monitoring
- Education, media & technology

Equality and Accessibility

One of the goals of the Sarva Siksha Abiyan is equality in elementary education to all

regardless of the caste, creed religion, sex and status of the people in the country. No gender elimination is considered in the process of giving elementary education. Small and very small habitants must be provided with a primary school within the walking distances of the children. Local bodies should take to and take necessary steps for establishing a school. Non-formal schooling such as EGS and AIE also serves the purpose.

Infrastructure

Adequate number of rooms, a deep verandah, compound walls with a gate, flag- post with enough space for common prayer meeting, garden, ventilated class rooms, separate toilets for boys and girls/ water closets, protected drinking water and playground must be provided which all conducive to the healthy institutional growth

Class Room Environment

A congenial classroom environment has to be provided for the children to learn the different subjects. Enough special classrooms would make the children for free learning. Posters, creative materials are to be displayed and updated.

Curriculum

Curriculum framed needs to be balanced between basic learning skills and life skills. These basic skills should be broadly defined so that children would gain the ability to articulate their feelings, categorize reality and describe their experiences. The need for more systematic and sequenced approach to curriculum development and text book publishing are stressed. Meaningful curriculum must be developed with keeping in mind the cultural background, the needs, hopes and aspirations of the weaker section of the society.

Effective Learning Materials

Learning materials are the tools for teacher and the taught through which the curriculum is transformed effectively to them. Number of materials prepared must be proportionate to the strength. Even the abstract concepts could be made concrete materials used in day-to-day life.

Teacher Empowerment

Improving the quality of teaching is at the centre of the quality assurance in schools. Teachers should be empowered to make choices about teaching methods and adapt the curriculum to needs of their pupils. The teacher has to be a local person winning the local community with full knowledge about the local geography, history, cultural traits and local problems. A teacher is not visualized as a lesson giver but someone who has the ability and capacity to organize, observe, stimulate, assess and foster the various learning process and take remedial measures.

Appropriate Methodology and Practices

Suitable methodology must be provided according to different subjects. Telling stories, songs, playing dramas, narrating the events in the past, quotations from the value based ethics, self-learning and activity based learning must be provided as per the requirements. Enough time must be spent for practising learning competencies.

Community Participation

Community participation is seen as a means to mobilize or extract local resources for education. Community is the owner of their village school to be properly managed and run for its own benefits, since there is saying "as the people are, so is the education system". The village community can involve itself in the system and help for enrolment (for school going children), infrastructure facilities, socio-cultural aspects, sports and games (rural sports), health camps, girls education, self-help groups (SUPW), to give awareness to their fellows by youngsters, create awareness about crisis management and the precautions

steps to be taken through street plays, utilizing local organization.

Monitoring

Inspecting and monitoring the teaching and learning process in schools must be routine. But official visit leads to certain undesirable consequences. This would be overcome by making the local bodies to do the monitoring. They can ensure the punctuality and regularity of teachers, daily attendance of students, cleanliness of school premises, unauthorized teacher absenteeism, effective use of TLM, increasing the participation of village community. Celebrating national days, organization of various socio-cultural programmes, proper use of school contingent grants, EGS and AIE centres could also be strengthened in order to streamline the out of school children.

Evaluation

Rote learning is encouraged in the present system of education. Thorough review and reforms need to be taken for a student-friendly evaluation process which is free from tensions and pressures. An open evaluation system could be refined to meet area specific needs (such as action researches). Apart from scholastic areas, the non-scholastic areas such as sports, games, cultural activities, regularity to the school, leadership, social activities, specialty of the individual child among the children could also be observed and thereby build self-confidence and self-assurance. All the activities of the child must be informed to the parents, so that fear complex can be removed.

Girls' Education

Parents must be given awareness about the girls right to education and the value of their contribution to change and to achieve broader development goals. Girls' education must be inter generational, simultaneous and integrated. Creation of residential facilities for poor girls, introduction of vocational training, providing an equal opportunity curriculum, appointing more female teachers and

administrators are some of the devices to effectively educate girls. This could be provided by the government along with the helping hands of NGOs and community as partners.

Media and Technology

Media and technology cannot be a substitute for teachers but their impact is felt by the learners. Being the fast reachers, these two could be considered for transaction of education to some extent. All the above facts discussed are for assuring the quality of

education at elementary level. School could be considered as an activity environment, a creative environment, a center of community participation, a technology centre through which a better quality is assured for satisfying the future needs of the individual as well as the society. Quality assurance in schools is very essential and become a demand due to globalization and it is necessary that the schools must be collaborative to achieve the common goal, i.e., learning achievement and mastery of skills and life-skills by the students.

DTERT, Chennai

QUALITY CONCERNS IN UPPER-PRIMARY CLASSROOMS VIA ABL

Dr. K. Nachimuthu

Lecturer (SG), Department of Education, Periyar University, Salem

Learning is the modification of behaviour. It is a life long process. At every moment we are learning. When we start our life journey, we start acquiring and changing habits, attitudes, thoughts, knowledge and skill. The teacher must know the processes of learning, different kinds of learning and different conditions of learning. There are some conditions which inhibit learning and some other that promote learning. The teacher must have a working knowledge of the various process of learning. In one of the activity based learning methods, the students participate in groups or separately involved in a particular learning situation. It ensures total involvement by group discussion, data collection, draw paintings, and play way method or analysis.

Objectives of Activity Based Learning

The objectives of the activity based learning in upper-primary level are as follows:

- To understand the characteristics and the importance of activity based learning.
- To develop the talents among teachers for creating learning environment for activity based learning.
- To change the curricular activities into working facilities for students.
- To understand the role and importance of activity based learning for overall development of children.
- To develop their personal creativity.
- To understand the evaluation method of activity based learning.

Teacher's Role in Activity Based Learning

Awareness of a problem is the first step toward creativity. So the teacher must first help students to be aware of or sensitive to the problems around them. The teacher should help the student to think originally and in a

novel way rather than the traditional way. To develop this ability the teacher should ask the students to think unique ideas avoiding conventional ideas that people ordinarily think of first.

The teacher acts as a good Planner, collect Information gatherer, neat Facilitator, exact Interactor, as a Role model, Correct Analyst, Cooperative minder, great Assessor, Partner, Problem solver, Appropriate Decision maker, Effective Communicator, good Creative thinker, Research thinking minder, Child Psychologist and good Coordinator. The learning activities are classified in to four main areas; viz., Interaction activities, Appreciating activities, Creative activities and Decision Making activities. We can give each and every activity plan by an evaluative method. For example, if it was allotted for 10 marks, 2 marks for correct approachment, 3 marks for heavy activities, 3 marks for reach the goal of a solution and attained the objectives and 2 marks for submission of activity plan report.

Learning level of Upper-primary students

In each upper-primary class there are children who struggle to read. There are some who cannot copy and write. Even if they know words and even if they understand for whole sentence, some find it difficult to read it as a whole. They cannot tell the meaning for an important word of a sentence. But one should not underestimate them for problems. The teacher should be patient in every stage and he/she can use the activity based learning method to remove the pit falls of the language in this situation. They know the reasons for a simple classroom problem. They are even ready to argue for that. But they are controlled by teachers like us. To know, to question and to analyze, training is given in the classroom. Children follow it in home and other places. They begin to search for an explanation in

their own way for their experiences. Here we can use day-to-day problems through activity based learning method and to be able to understand the correctness of a particular subject.

We should not differentiate between fourth and fifth standard students. In Pre-KG classes, we see some of the same behaviours among the children. In first and second standards also, they could not be separated. We can notice the same phenomenon in fourth and fifth standards. We have seen the third standard students who warn their classmates by whispering about higher authorities (HM) arrival. Fourth and Fifth standard students warn their whole class and the teacher by their body language! They have grown up to this level. A Head master can easily notice it. We know that children tend to express things without worrying about effects. We have to motivate the students each and every learning activity by this activity based learning method. In fifth student level, one student blames, others also blame. If no one opens mouth, all shut their mouths. Other students in the class pretend as if they do not know anything. If there is any interrogation in the class, someone tells the truth. Then everyone follows and say 'Yes, Yes'. But, a great surprise is that the students who quarrel in class room come to compromise if they are in a situation to meet teacher. We, the teacher, can identify the problem and to solve it by the way of activity based learning.

Some of the problems and difficulties experienced by the teachers, while implementing the activity based learning in their class room conditions are as follows:

- It is told that teacher becomes tired, because from starting to end of any action in the class room, the teacher must be very active and responsible.
- It is a difficult situation to complete all the contents of a lesson.
- It is difficult to formulate the activities according to the upper-primary level students.
- It is not an easy job, to maintain all the students' learning level through activity training.
- It is difficult to prepare the activity content for all lessons.
- There will be no leisure for teachers because of their involvement in the activity based preparations.
- It takes more time for the slow learners.
- It is difficult to explain the abstract based concepts in a class room situation.
- It is not an easy job to find out the aids and equipments for a particular learning situation.

Each and every activity based learning might to be designed on the basis of objectives, procedure and its outcomes. It must take into account student's interest as well as their talents. Finally we can say that there are three types of the activity based learning approaches, viz.

- i) learn through the aids and equipments,
- ii) group method of learning and
- iii) direct face-to-face teaching by the teacher.

The activity based learning solves the problem of slow learners learning problems.

IDENTIFYING READING DIFFICULTIES OF EIGHTH STANDARD STUDENTS IN PERIYANAICKENPALAYAM AREA

Sri C.Shankar* and Sri V. Srinivasan**

*Lecturer in Physical science, K.R.P. College of Education, Pachampalayam, Namakkal (Dt)

**Lecturer (SS) in English, S.R.K.V. College of Education, Coimbatore

Reading Skills

One of the three 'R's of learning, reading is an important skill that children are expected to acquire fairly early in school. Reading is not merely a part of gaining language proficiency. It is essential on learning even after the school years. Reading helps one acquire knowledge and constantly update oneself. Reading occupies a special place in the complex language skills. Reading proficiency is the royal road to knowledge; it is essential to success in all academic subjects. Reading involves the recognition of printed or written symbols, which serve as stimuli for the recalls of meanings built up through the reader's past experience (Guy Bond & Mile A. Tinker, 1973). Reading holds the key to the storehouse of information and it lays before us new pester for browsing. Reading extends the boundaries of knowledge; it is a part of language refinement and development. It should not be thought of as an isolated skill. Reading is taught to pupils with two objectives: (1) To enable them the power of gaining pleasure and profit from the printed page. (2) To train them in the quick comprehension of a passage.

Significance of the Study

Today, parents and teachers are increasingly concerned about the difficulty of many children to read at very effective level. These students progress in academic part as well non-academic part is not satisfactory. The importance of reading necessary for Daily activities, Progress in school, Knowledge and skill for advancement in vocation, Good citizenship, etc. The advantage of good reading enables a person to be more creative and independent.

Today, the school students at primary and secondary level face many problems in

learning process especially in reading skill. Therefore, identification of such children at an earlier stage in reading is necessary and this will help frame new guidelines in the conventional area with reference to English language teaching. These children are unable to progress satisfactorily in school and later because of severe retardation in reading are unlikely to find suitable employment. The investigators attempted to study about the reading difficulties faced by Eighth standard Tamil Medium students, which involve early identification of reading problems at middle school level

Objectives of the Study

The objectives of the study are as follows,

- To find the level of reading difficulties faced by Eighth standard students with respect to gender.
- To know the reading rate of Eighth standard students with respect to gender.
- To find the ability of reading comprehension of Eighth standard students with respect to gender.
- To find the reading efficiency of Eighth standard students with respect to gender.
- To analyze the word recognition rate of Eighth standard students with respect to gender.
- To study the word recognition comprehension of Eighth standard students with respect to gender.
- To find out the word recognition efficiency of Eighth standard students with respect to gender.
- To know the vocabulary power of Eighth standard students with respect to gender.

Design of the Study

The investigator used correlation design for this study. The correlation design is aimed at finding out the reading difficulties and its various skills among the Eighth standard students of seven schools situated in the Perianaickenpalayam Taluk.

Variables

The investigators attempted to analyze the reading difficulties and its characteristics skills such as *Rate of Reading, Reading Comprehension, Reading Efficiency, Word Recognition Rate, Word Recognition Comprehension, Word Recognition Efficiency* and *Vocabulary* with respect to their gender, locality and community as the main variables.

Construction of the Tool

The construction of the tool consisted of four important stages. In the first stage of reading passage of four hundred and eighty words was selected and standardized to the level of Eighth standard students at state board syllabus level. In the second stage, fifteen multiple choice questions were given from the same reading passage to check the understanding the reading comprehension level of the students. In the third stage, the vocabulary containing fifteen items were chosen to test the exact Tamil meaning of the given words. At the last stage a set of twenty five words with corresponding set of five

words given for analyzing the word recognition capacity of a student. All those items in the test were standardized with the opinion of experts based on "The Durrell analysis of reading difficulty" (Durrell, 1955).

Sample

The investigators for this study, selected fifty three students consisted of twenty five boys and twenty eight girls of Eighth standard students from the seven schools of Periyanaickenpalayam. For this research, the investigators adopted the simple random sampling method.

Method of Data Collection

All the students were requested to read all those content present in the tool once. Then reading of each student was recorded carefully by using tape recorder and time taken for completion of reading was noted by using stopwatch. The time taken for word recognition also noted and level of comprehension and vocabulary were tested in a stipulated time. After they had completed their responses, the investigator collected them from the students. The recorded cassettes were played again to ascertain their ability in reading. Experts from the department of English were employed to analyse the mistakes of reading. The obtained scores were tabulated and interpreted in detail.

Score Distribution of Different Reading Difficulties Faced by Eighth Standard Students

Sl. No.	Type of Reading difficulties	Total number of students	% of Reading difficulties
1	Rate of Reading	50	94.33
2	Reading Comprehension	41	77.35
3	Reading Efficiency	42	79.24
4	Word Recognition Comprehension	14	26.41
5	Word Recognition Rate	21	39.62
6	Word Recognition Efficiency	40	75.47
7	Vocabulary	50	94.33
Total % of Reading difficulties			69.53

From the above table it is clear that the overall reading difficulties faced by students among

total number of fifty-three is 69.53%.

Score Distribution of Different Reading Difficulties Faced by Boys and Girls of Eighth Standard Students

Sl. No.	Type of Reading difficulties	Boys	Girls
1	Rate of Reading	20	30
2	Reading Comprehension	21	20
3	Reading Efficiency	23	19
4	Word Recognition Comprehension	8	6
5	Word Recognition Rate	12	9
6	Word Recognition Efficiency	25	15
7	Vocabulary	24	26
Total % of Reading difficulties		51.55	48.45

From the above table it is cleared that 51.55 % of boys and 48.45% of girl's posses reading difficulties.

From the analysis and interpretation of the results, out of 53 students

- 69.53% students possess greater reading difficulties.
- 30.46% students possess less reading difficulties.
- 51.55% boys possess reading difficulties.
- 48.45% girls possess reading difficulties.

Implications of the Study

Today, education gives more importance to learning difficulties especially the reading difficulty. More intensive research and study in this field could help to develop a remedial process involving teachers, parents, administrators and curriculum planners and Educationists.

From this study, it is evident that the students are not differing significantly in their vocabulary, reading speed, comprehension and word recognition which are not up to the expected level because of so many factors. The following are some of the suggestions:

1. Class containing at least 1:30 Teacher: Student ratio helps to teacher for giving special attention to students who have reading problems.
2. English teachers must give more concentration to students with reading difficulties in English.
3. The class teacher assesses reading ability of students frequently.
4. Parents must co-operate and motive their children to read English newspapers and hear English news daily.

- iii. Ensuring a minimum of 4 to 5 hours per day of meaningful stay of each child in school;
- iv. Providing trained and committed teachers in all schools and really interested and oriented instructors for all non-formal education centers (EGS & AIE);
- v. Improving the quality of existing pre-service teacher education;
- vi. Organizing quality in-service teacher education to all teachers on a periodical basis and with a follow-up mechanism;
- vii. Creating and sustaining teacher motivation;
- viii. Revitalizing supervision system for quality elementary education;
- ix. Development of competency based and contextual teaching-learning material;(Quality Issues in Elementary Education, SSA)

Steps in designing a quality improvement system

The design of a Quality Improvement System involves four basic steps:

1. To identify critical points in the TEP where inspection/assessment is needed. This includes assessment of student-teacher entry point characteristics, teacher-education's characteristics and competencies, the curriculum and the teaching methods. This ensures that the TEP is appropriate and is running properly.
2. To determine the type of measurement to be used. Measurement by attribute focuses on general characteristics of student teachers and the TEP that suggest an acceptable or an unacceptable level of quality. This includes assessment of desirable knowledge, attitudes, values and skills developed in the student teachers through TEPs.
3. To determine acceptable level of attainment of the objectives of the Teacher Education Institutions.

4. To determine who will do the assessment. The staff could be trained in ensuring quality. For this purpose, teacher educators can form quality circles, meet periodically and discuss teaching learning and other academic and professional problems. Quality circles are based on the idea that the teacher-educators themselves best identify and solve their professional problems.

Steps for improving quality in elementary education

A teacher must possess the various personal and professional qualities. There is no denying the fact that all these qualities are essential requisites for a good teacher, but among all, mastery over the content is one of the most essential ones. Because, it goes without saying that no one can be a good teacher without knowing his subject. Good education is an indispensable requirement for a teacher. The teacher has got to be a man of wide education.

Side by side with the expansion of education, facilities at the elementary level efforts have also been made to improve the quality of education so as to make it more responsive to the aspirations and the needs of the people. It is to be remembered that improving the quality of education is a slow and gradual process. Another point regarding this aspect is that improvement is a constant process. Changes in Science and Technology necessitate changes in the teaching-learning process, contents and materials. As J. P. Naik has observed, "it includes several programmes such as improvement of text books, adoption of better methods of teaching and evaluation, intensive utilization of available facilities, maintaining contact with the community, individual guidance to students, inculcation of social and moral values etc., which do not need much investment in terms of physical or monetary terms. But their success depends essentially upon the competence of teachers, their identification with the interests of the students committed to their care" (Aggarwal, 2006).

The concept of alternative paradigm in teacher education can be thought of as a matrix of beliefs and assumptions about the nature of schooling, teaching, teachers and their education that would provide a form of practice in teacher education. This alternative paradigm seeks to build a case and could legitimately argue for a shift towards quality teacher education in accordance with the demands of school education and society. The suggestive paradigm is based on argument and assumption, analyzing the extensively existing structure, policy, actions and meagre research support. The suggested alternative paradigm in teacher education would take into account structural change in the system of teacher education, defining the teacher's role within the framework of the necessary redefinition of the role of the school system and education, enhancing entry qualifications, expanding duration, modifying curriculum and practice teaching, and changing institutional arrangement (Pranati Panda, NCERT).

Future Strategies

In future, the following strategies may be used for improving the quality of elementary education.

- ✧ Expansion and consolidation of DIETs, CTEs, IASEs and SCERTs.
- ✧ Strengthening of the other teacher training institutes.
- ✧ Strengthening of NCTE.
- ✧ Partnership of national level institutes to achieve the desired objectives of improvement of content, processes and management of pre-service and in-service education programmes.
- ✧ Greater involvement of voluntary agencies, whose innovative and experimental programmes have borne laudable results.

- ✧ Networking of state institutions for improvement in teacher education.
- ✧ Use of distance education for in-service training.
- ✧ Streamlining of the project formulation, and clearance machinery through the involvement of experts at the national level.
- ✧ Proper and timely utilization of funds by the states with regard to DIETs and other institutions.
- ✧ Periodic research monitoring and evaluation of CSS of Restructuring and Reorganizing of Teacher Education.
- ✧ Linking training with career advancement.

Conclusion

More than ever before in our history, teaching is the profession that is shaping the nation's future-molding the skills of our future workforce and laying the foundation for good citizenship and full participation in community and civic life. Accordingly, what teachers know and are able to do is critically important. Yet, we face daunting challenges as we seek to ensure a national teaching force of the highest quality.

As classrooms grow more challenging and diverse, these teachers will need to be well prepared to teach all students to the highest standards. Contemporary classrooms and social conditions confront teachers with a range of complex challenges previously unknown in the profession.

New education goals and tougher standards, more rigorous assessments, site-based management, greater interest in parental involvement, the continuing importance of safety and discipline, and expanded use of technology increase the knowledge and skills that teaching demands.

ENHANCING QUALITY ASSURANCE IN SCHOOLS

Jain John

Lecturer, Department of Physics, St. Joseph's College, Tiruchirappalli

We are in the state of flux and changes are taking place rapidly. These have an impact on all systems and subsystems and the goals and inspirations of people within these systems and subsystems. Education is all about a process of transforming children from raw material to polished adolescents capable of meeting the challenges in their carriers and life. The word 'quality' has been borrowed from the field of industry.

In the domain of education, pressures of reform, change, and quality assurance implicitly involve several challenges. In academic parlance, two terms are often used namely "Quality assessment and Quality Assurance". Quality assessment refers to the internal and external evaluations used to assess the overall performance of the institution. Quality Assurance refers to "the concern of different stakeholders regarding the continuous process of adopting various mechanisms and procedures to monitor performance and to take up remedial measures to improve academic standards and to increase the overall effectiveness of the organization."

It is also defined as "all the planned and systematic activities implemented within the quality of system and demonstrated as needed, to provide adequate confidence that an entity will fulfill the requirements for quality."

The purpose of quality assurance is to fulfill the quality requirements of an entity, i.e. product or service, with adequate confidence by the supplier. It is to prevent errors or to identify and eliminate causes of problem forever. Corrective activities need to be based on analysis of past data so that the causes of the problem are determined and taken care of permanently. It can help the school system to get barrier-free atmosphere, seek alternates for defective designs, make joyful working environment and generate product

development activity. This requires implementation of all the activities planned for building quality into the product. Such planned activities are to be implemented systematically within the purview of a documented quality system. Building quality into the education system requires: Quality of course design, Quality of consistency and transparency, Quality of performance and Quality of service

Quality of Course Design

It refers to how well the course/service has been designed to meet the current and future requirements of students in the required format at the required time and add value to all stakeholders of any school i.e., government, management, teachers, parents, students and community. Primarily, it focuses on the students requirements. Each stakeholder has his/her personal expectations regarding the performance and outcome of the system, and of individual institutions with which he/she involved directly or indirectly. The stakeholders demand that their wards who are educated must be able to get commensurate returns on their investment. The government, as the largest provider of funds for education, has a specific interest in institutional accountability for using public resources. So do the students who pay fees. Quality has to satisfy these stakeholders first.

Quality of consistency and transparency

Quality assurance builds internal consistency and external transparency in delivering the designed system of education. Education system in turn depends on the quality of all processes in the school. Therefore, it involves all activities that will ensure the conformance of the products to its requirements consistently.

School quality is a function of inputs and the efficient management of these inputs in relation to desired goal. Institutions need to recognize the criticality of the development of a long-term strategic planning document and a vision statement enshrining a well-defined set of goals and objectives. The long-term action plan involves the incorporation of the appropriate management information systems for efficient resource management and performance monitoring. These render the institution accountable. Accountability is co generic to quality.

The main indicator of quality of schools can be visualized in terms of input, process, and output. For desired output in terms of achievement both on curricular and co-curricular areas, necessary inputs and process need to be provided.

Quality of performance

This indicates the performance of the product. This in turn depends on the quality of course design and consistency of input, process and output. Performance is assessed by both standardized and criterion referenced tests.

Quality of service

The different dimensions of service quality are given below:

- **Access:** Maintaining customer driven office hours is desirable. Efficient telephone and e-mail service provide easy access.
- **Keeping customer informed:** The institution provide what are the costs and visions of institution in long range and short range because assuring the customer of the intensions of the organisation is essential.
- **Competence:** The institution should spell out and justify how it is competent, having the necessary skills and knowledge. It should demonstrate its excellence in its teaching job through statistics of results. Appropriate indicators

should explain the research capabilities.

- **Courtesy:** Politeness, treating students with dignity and honour and extending equal treatment to all are desirable.
- **Credibility:** Honesty, trustworthiness, having fair policies in recruitment of deserving candidates.
- **Reliability:** Consistency of performance and dependability.
- **Responsiveness:** Replying to phone calls, replying letters, resolving complaints on time are the usual weakness.
- **Security:** Freedom from risk, danger, doubts, assuring physical safety, protecting individual's privacy.
- **Tangibles:** Physical evidence of service, maintaining campus grounds, acquiring appropriate technology deserves greater attention.
- **Knowing the customer:** Providing individual attention, and developing means to listen obtaining feedback at regular intervals.
- **Customer focus:** Institutions must change their attitudes in favour of customers.

Available formulae for quality assurance and enhancement:

In this context, it may be worthwhile to refer to the postgraduate Certificate Document (Pennington, 1994), which includes the following findings from feedback obtained from more than 600 students drawn from about 40 courses:

- ✧ the need for more effective teaching delivery (50%)
- ✧ the need for greater coherence in assessment methods (23%)
- ✧ the need for better course management and design (16%)
- ✧ other factors (11%)

The concerns of the academic were with: active learning methods, development and use of portfolios, generic skills development, assessing more students, assessment of competencies, independent learning, self and peer assessment, group-working skills, and improving course quality.

This study concluded that every programmer had to necessarily involve academics who had strong confidence and competence within and outside the classroom. The academics needed to be equipped with adequate skills and understanding that will strengthen better teaching practice and support student learning amply.

Seven Cs

Piper's (1993) 7-Cs offer an alternative set of criteria against which a quality assurance system can be judged:

- **Comprehensiveness:** The extent to which quality assurance procedures are applied to all pertinent areas of management.
- **Communication:** The extent to which policies and procedures associated with quality management are stated, circulated, and understood.
- **Cogency:** Philosophical unity of plans (e.g. mission, goals, objectives), the extent to which explicit and implicit

values, which inform policy, 'drive together' rather than contradict. The persuasiveness of fundamental arguments. The extent to which plans may be regarded as realistic.

- **Coherence:** The extent to which the missions, values, and goals, and policies of the various parts of an organization reflect the mission values, and policies of the whole.
- **Consonance:** The relationship between action and policy, between the act and the intent. The extent to which management structures, processes and methods realize, or have the potential to realize the mission, goals, and reflect the values of the organization.
- **Constancy:** The stability of missions, values, goals, policies and strategies over time.
- **Consequence:** The extent to which judgment of quality and recommendations for improvement are acted upon. The extent to which continuous improvement is manifest.

Conclusion

Enhancing quality assurance in school is the need of the hour to transform the different stakeholders to meet the changing needs of the society and the world.

UPPER PRIMARY STUDENTS' PERCEPTION ON QUALITY ASSURANCE OF THEIR CLASSROOM PROCESSES

M. Selvam

Lecturer, DIET, Perundurai, Erode District

Introduction

Education has always been accorded an important place in the development of human resources in society. The country's commitment to the goal of providing "Education For All" (EFA) needs no reiteration. This has been made clear in various policy statements, including the National Policy on Education (1986) which explicitly mentioned the importance of the following in the direction of EFA: (i) Universal enrolment, (ii) A substantial improvement in quality of education. For achieving the quality in education, managing the classroom transaction is an imperative one. In the above context, the system has to initiate the concept of Quality Assurance (QA) by itself.

Quality Assurance and Education

The concept of Quality Assurance was developed from the shortfalls of the era of inspection through error detection and rectification before the 1952's, as propounded by Frederick Taylor. This approach suited the times because it was mainly used to determine whether products in the manufacturing sector met the standards. Quality Assurance may be defined as "all the planned and systematic activities implemented within a quality system and demonstrated as needed to provide adequate confidence that an entity will fulfill requirements for quality".

Educational Framework for Quality Assurance

Quality started with inspection developing into Quality Control (QC) graduating to Quality Assurance (QA) and ultimately reaching the climax, of Total Quality Management (TQM). The alternative form of ensuring quality is Quality Assurance (Tovey, 1994). This

involves designing systems to deliver quality before the event (Fidler, 1996).

The Quality Assurance in the classroom transaction is the heart of an educational system. It tries to develop the following among the teachers (i) love of learning and continuous learning, (ii) using appropriate teaching methods, (iii) using self inspection/analysis, (iv) preventing the defects in the classroom process, and (v) trying to improve the performance of their students. It is a strategy of prevention of production of students with stunted growth. It offers a systematic approach to institutional development and quality management on a continuous basis. Hence, Quality Assurance holds a tremendous potential to draw out Indian schools from the current crisis of quality.

Theoretical Framework

So far, the much attention has not been given to the Quality Assurance in the elementary education. In keeping with it in mind, this study is carried by the investigator. The survey instrument was developed by the investigator. The expert opinion of two educational evaluators and five secondary grade teachers were used to validate the instrument. The instrument was a five point Likert Attitude Scale designed to determine "how do upper primary students perceive their classroom processes in terms of Quality Assurance?"

It has 12 items. The survey instrument was administered to the upper primary students sample of 90 in Perundurai region of Erode Educational District. The sample was composed of upper primary (VI, VII, and VIII standards) students from 3 Panchayat Union Middle Schools (PUMS) (30 students from PUMS Perundurai (East), 30 students from PUMS, Perundurai (West) 30 students from PUMS, Thoppupalayam). The random

sampling technique was used for selection of sample for this study. The frequency score and percentage score were employed for analyzing the data.

Table 1

The survey of students' perception of Quality Assurance in their classroom processes

Sl. No	Statement	A, B, C Schools	Frequency Scores				
			Strongly Agree	Agree	Not Sure	Dis-agree	Strongly Disagree
1.	Teachers communicate upto date Knowledge in the classroom	A	16	11	3	0	0
		B	25	3	2	0	0
		C	21	8	1	0	0
		Total	62	22	6	0	0
		%	68.8	24.4	6.6	0	0
2.	Teachers use interactive methods of instruction	A	18	9	2	1	0
		B	22	6	2	0	0
		C	19	7	1	2	1
		Total	59	22	5	3	1
		%	65.5	24.4	5.5	3.3	1.1
3.	Teachers utilize Radio and TV for their instruction	A	3	4	2	5	16
		B	14	8	2	3	3
		C	11	10	4	4	1
		Total	28	22	8	12	20
		%	31.1	24.4	8.8	13.3	22.2
4.	Classrooms are in conducive environment	A	17	12	0	1	0
		B	24	6	0	0	0
		C	17	11	0	1	1
		Total	58	29	0	2	1
		%	64.4	32.2	0	2.2	1.1
5.	Teachers do optimal utilization of resources (library, laboratory) for their instruction	A	15	11	1	2	1
		B	25	2	2	0	1
		C	10	13	3	3	1
		Total	50	26	6	5	3
		%	55.5	28.8	6.6	5.5	3.3
6.	Teachers assist students in coping with frustration and failure	A	13	14	3	0	0
		B	28	2	0	0	0
		C	15	13	1	1	0
		Total	56	29	4	1	0
		%	62.2	32.2	4.4	1.1	0
7.	Classroom rules specifying the do's rather than the don'ts	A	12	10	3	2	3
		B	21	2	2	3	2
		C	19	9	1	0	1
		Total	52	21	6	5	6
		%	57.7	23.3	6.6	5.5	6.6
8.	Teachers respect unusual questions and ideas of students	A	14	13	1	2	0
		B	20	6	4	0	0
		C	6	6	2	10	6
		Total	40	25	7	12	6
		%	44.4	27.7	7.7	13.3	6.6

Sl. No	Statement	A, B, C Schools	Frequency Scores				
			Strongly Agree	Agree	Not Sure	Dis-agree	Strongly Disagree
9.	Teachers give freedom to explore within the limits of one's own abilities	A	12	5	5	3	5
		B	25	5	0	0	0
		C	16	9	4	0	1
		Total	53	19	9	3	6
		%	58.8	21.1	10	3.3	6.6
10.	Teachers use TLMs	A	15	6	3	3	3
		B	17	5	3	3	2
		C	8	14	5	1	2
		Total	40	25	11	7	7
		%	44.4	27.7	12.2	7.7	7.7
11.	Teachers frequently use remedial teaching	A	21	6	3	0	0
		B	25	2	2	0	1
		C	17	12	0	0	1
		Total	63	20	5	0	2
		%	70	22.2	5.5	0	2.2
12.	Teachers clarify the doubts of students	A	19	11	0	0	0
		B	26	4	0	0	0
		C	20	9	1	0	0
		Total	65	24	1	0	0
		%	72.2	26.6	1.1	0	0
		Average of %	57.9	26.2	6.2	4.6	4.7

A - Panchayat Union Middle School, Perundurai (East)

B - Panchayat Union Middle School, Perundurai (West)

C - Panchayat Union Middle School, Thoppupalayam

Results and Discussions

According to the table (1), 57.9% of the respondents strongly agreed that Quality Assurance movement is existing in their classroom processes and 26.2% of the respondents agreed to the same. 4.6 % of the respondents disagreed that Quality Assurance has not occurred in their classroom processes and the remaining 4.7% of the respondents strongly disagreed to the same. Hence the study suggests that the teachers may try to satisfy the requirements of all students and it recommends that systematic observation and descriptive case studies about Quality

Assurance in Elementary Education may be undertaken in future for strengthening the same concept.

Sum up

The data revealed that the practice of Quality Assurance exists in schoolrooms of elementary education in Perundurai region of Erode Educational District. Infact, the mechanism of Quality Assurance helps the teachers to inspect, to select the right strategy, to modify the existing practices in the classroom process and finally it guides them towards 'Quality Classroom Processes'.

ROLE OF HEADS AND TEACHERS IN ENHANCING QUALITY ASSURANCE IN SCHOOLS

Sr. Stanly

Principal, St. Anne's College of Education, J. A. C. Campus, Periyakulam, Theni Dist

"...Traditionally, quality has been linked to the idea of exceptionally high standards. A second approach...sees it in terms of consistency. Quality in this sense is summed up by the interrelated ideas of zero defects and getting things right the first time. A third approach to quality relates it to fitness for purpose... quality is judged in terms of the extent to which a product or service meets its stated purpose. A fourth approach equates it with value for money... A fifth view of quality sees it as transformative. Education is not a service for a customer but an ongoing process of transformation of the participant. This leads to two notations of transformative quality in education, enhancing the consumer and empowering the learner." It is the primary function of the heads and teachers in the school.

Quality is a set of parameters against which we evaluate an institution. It is perceived in different connotations. The general rule relates to quality in education would reflect the fostering of higher order intellectual capacities in students, such as the ability to form and substantiate independent thought and action, build coherence in such thoughts and actions, and be able to articulate the ideas that emerge from them as well (Barnett, 1992); further to articulation, students should be able to develop adequate wisdom to remain socially responsible and translate that responsibility into constructive action.

Total quality management approach emphasizes quality assurance, by providing quality inputs. It has made a change in performance of organizations around the world. Japanese economy became a powerhouse by using Total Quality Management. Dr. Deming one of the pioneers is practically worshiped in Japan. World best institution are using Total Quality

Management and by virtue of which they have reached high standards. It can bring about a change also in India.

Quality assurance believes in 'prevention is better than cure'. Eating good food is essential for good health. With this logic the method prescribes control on inputs. Efficiency of the systems is at the roots. Institutions where systems are good, people tend to work efficiently. Bad systems are found to cripple the innovative people. The heads and the teachers are the stakeholders who have an interest in the institution and who contribute to its development and success.

The role of the principals and teachers plays a vital role in enhancing quality assurance in schools. The principal or headmaster of an educational institution is responsible for the functional efficiency of the institution, as also the quality of education and discipline in the institution. He is also responsible for maintaining the philosophy and objectives of the institution. He is of superior of merit. Headmasters in a school are of prime importance in administration of that educational institution. The headmaster has the key role in functioning of the school. He is the hub of on, which all the spokes of the school are set around whom they rotate to generate result. A school is personified through its headmaster and he is the focal point on which outsiders look at the school. A bad headmaster can spoil the entire institution, an efficient and honest Headmaster can improve it by leaps and bounds. The functional efficiency of a school very much depends upon the efficiency and dedication of its headmaster. This pristine percept remains unchanged despite many changes taking place in the structural patterns of education over the years. How important is the post of headmaster of a school has been pithily stated by a Full Bench of the Kerala

High court in *Aldo Maria Patroni V.E.C.Kesavan (AIR 1965 Ker 75)*. Chief Justice M.S.Menon has, in a style which is inimitable, stated thus:

The post of the headmaster is of pivotal importance in the life of a school. Around him wheels the tone and temper of the institution: on him depends the continuity of its traditions, the maintenance of discipline and the efficiency of its teaching. The right to choose a headmaster is perhaps the most important facet of the right to administer a school...

So principal is the academic and administrative head of an educational institution. He has a pivotal role in framing the policies in agreement with the vision and mission of the institution. He has to turn the vision into action evidenced by the achievements of the institution. The leader should have a commitment for quality and have passion for excellence and should be achieved through continuous internal quality assurance activities. The principal is an example for others and sensitivity to change. Without any interplay of personal bias he must be able to appraise the performance of the staff. As a felicitator, it is his duty to give sufficient encouragement to faculty to research and consultancy and to create opportunities for faculty development programmes. He has to create a sense of family in all the constituents of the school.

So principal as a leader should have positive leadership; social commitment and national outlook; appreciate innovative initiatives; sharing of responsibilities; responsive and sensitive to change.

Role of teachers in enhancing quality assurance:

Some of the sayings about teachers are, "Teachers are born and not made", "A teacher is a social entity". A poor teacher tells. A good teacher teaches. An excellent teacher demonstrates. An understanding teacher motivates. The abilities of a quality teacher includes their academic and research

eminence, intellectual competence as measured by command over the subject, ability to build an argument in a cogent and coherent manner, communicative competence as reflected in clarity of thought and expression and above all, their creative competence as signified by reflective character of teaching. All teachers may not be alike as for as above-mentioned characteristics are concerned. However, one thing is true that everybody should strive to improve their quality. Education is learning how to learn, not what to learn which is found in text books, syllabus, and teacher's instruction, not when to learn. It is the need of the hour for the teachers of this millennium to provide quality delivery of learning instructions to learners. Learning should be effective, meaningful and joyful to the learners leading to a life-long learning process. Therefore, teachers should provide favourable learning environment to students. Education implies academic excellence. It leads to overall development of the personality. It goes above and beyond cognitive growth and aims at human growth. This calls for the involvement of the whole person's mind, heart and will in the learning process.

Quality can be assured by making everybody in the system accountable and responsible to everyone else. Everyone should become watchdog on the quality of the system.

Essence of Effective Teaching

Essence of effective teaching involves (i) an understanding of the centrality of teaching and learning processes in an institution, (ii) placing appropriate selection procedures for those aspiring to become academic staff in explaining their philosophy, motivation and practice regarding teaching, (iii) mandatory educational development programmes which stress professional proficiency, competence and skill acquisition, (iv) rewarding structures and promotion criteria which acknowledge excellence in teaching, (v) adopting a teaching portfolio for all members of the academic staff to be deployed during appraisal, review, and promotion interviews, (vi) Creating a faculty

base for disseminating good practice in teaching and learning, (vii) development of a teaching-learning strategy and the linking of this to the institutional development plan, (viii) establishing mechanisms to support and fund innovations in teaching and learning, (ix) establishing an educational development unit within the organizational structure, and this development unit can assist with quality improvement and monitor quality assurance.

Teaching is basically a competence building process. The teacher helps individuals in identifying their potential and trains them to think independently. Sivaswaroop (2004) remarks, "the teacher is supposed to be having multiple skills".

The role of teachers in changing students may be summarized in the following statement:

- the teachers should be able to create and sustain an academic environment.
- the teachers should not be restricted to teaching only but should take part in extension activities.
- the teachers should be conscious of their roles in terms of teaching, training, consultancy and research
- teachers should be active researchers and life long learners
- the teachers have to encourage students to be willing partners in the learning process.
- the teachers are expected to dedicate their efforts and energy towards the development

of the institution they are working for and in the process develop themselves as professionals.

The teachers should practice superior standards of ethics and morality. According to Dhar (2004), "a teacher is more a giver than a taker". Because teaching happens to be one of the noblest of professions even today. The teachers have to be accountable to both their employers and the students.

To assure quality, teachers have to be quality conscious, if we have to sustain and survive in this competitive world. We should try to improve upon and move ahead from whichever state we are in, given the constraints, including finance, space, technology, knowledge and research. A teacher has a significant role to play in this process of quality enhancement. An ideal teacher's task is not only to inform but also to inspire. He can truly inspire, only if he is himself following the true path of a learner and keeping continuous touch with modern developments and practices at least in his area of study.

Teachers should give their students the right values and enable them to foster culture. They should provide the students with the skills and knowledge required to be productive citizens in a global environment. They need to be 'field guides' as they and their students explore vast domains of knowledge.

OPINION TOWARDS ACTIVITY BASED LEARNING AMONG HEAD MASTERS

M. Rajalakshmi * and Dr. K. Anandan**

*Principal, Indra Ganesan Teacher Training Institute, Tiruchirappalli

**Reader & Head (i/c), Department of Education, Centre for Distance Education,
Bharathidasan University, Tiruchirappalli

Introduction

Activity Based Learning (ABL) is the one of the important components of Sarva Shiksha Abhiyan (SSA). This scheme was introduced to give an opportunity for social justice-basic education. SSA is to provide useful and relevant elementary education for all children in the age group of 6 to 14 by the year 2010. The objectives of SSA are: i) all children in school, Education Guarantee Centre, Alternate School, 'Back- to- School' camp by 2003, ii) all children complete five years of primary schooling by 2007 iii) all children complete eight years of elementary schooling by 2010. iv) focus on elementary education of satisfactory quality with emphasis on education for life v) Universal retention by 2010. Tamil Nadu Government has introduced ABL from the year 2006-2007 upto the standard IV.

Objectives

The objectives of the studies are: i) to find the level of opinion of the Head Masters (HMs) of primary and Middle Schools, ii) to find the difference between opinion of Male and Female HMs, Government and Aided School HMs and HMs whose experience is below 15 years and above 15 years towards ABL.

Hypotheses

The following hypotheses were formulated to realize the above objectives.

- i) There is no significant difference among Male and Female Head Masters in the opinion towards ABL.
- ii) There is no significant difference among the HMs who experienced below 15 years and above 15 years in opinion towards ABL.

- iii) There is no significant difference among Government and Aided School HMs in their opinion towards ABL.

Nature of the Study

It is a Survey Research, because the researcher has aimed at studying the opinion of the HMs towards ABL.

Sample

The investigators randomly selected 50 Head Masters working in Primary and Middle Schools of Tiruchirappalli District.

Research Instrument

The investigators developed the Opinion Scale which consists of four point scale such as, Strongly Agree, Agree, Disagree and Strongly Disagree. There were 22 statements in the Opinion Scale. The Head Masters were asked to reveal the opinion freely. Different statistical techniques were used to analyze the data.

Validity of Tool

After the construction of the questionnaire, the investigator approached the Head Masters for Validation. The preliminary draft of the Statements was given to the Primary HMs to give their recommendations. Their valuable suggestions were considered. Thus the draft of the Statements was given to the 10 HMs by Test - Retest Method. The 'r' value of 0.83 reveals that the tool is highly reliable one. Thus the validity and reliability were found out. Now the tool is ready for collection of data.

Data Analysis

The collected data were analysed using different statistical techniques. The results are presented in the following table.

Table-1
Mean and SD of the HMs with different classification

Sl. No.	Category		N	Mean	SD
1.	Sex	Male	25	65.32	7.36
		Female	25	68.08	6.82
2.	Experience	Below 15 Years of Experience	23	65.91	7.35
		Above 15 Years of Experience	27	67.37	7.01
3.	Type of School	Government	38	67.21	7.90
		Aided	12	65.08	4.21
Average			-	66.50	6.78

From the Table-1 it is understood that the average Mean score of the attitude score is 66.50 which reveals the positive opinion of the HMs. More over the minimum opinion score is 65.08 and the maximum score is 68.08. This also reveals the positive trend of the opinion of

the HMs towards SSA. The following tables furnish the data regarding Male and Female HMs, HMs who experienced below 15 years and above 15 years and HMs belonging to Government and Aided schools in Opinion towards ABL.

Table-2

Significance of Difference on the Mean Scores of Male and Female HMs towards ABL

Category	N	Mean	SD	t-test	Remarks
Below 15 Years Experience	25	65.32	7.36	27.16	SD #
Above 15 Years Experience	25	68.08	6.82		

Significant at 0.001 level

It is inferred from Table-2 that there is high significant difference between the mean scores at 0.001 level. It is also inferred that the level of Opinion towards ABL of Female HMs is

higher level than Male HMs. Hence the stated Null Hypothesis that there is no significant difference among Male and Female HMs in the opinion towards ABL is rejected.

Table-3

Significance of Difference on the Mean Scores of HMs Experience Below 15 years and Above 15 years Experience towards ABL

Category	N	Mean	SD	t-test	Remarks
Male	23	65.91	7.35	14.60	SD #
Female	27	67.37	7.01		

Significant at 0.001 level

The above Table-3 reveals that there exists a high significant difference between the mean scores at 0.001 level. This table also shows that the level of Opinion towards ABL of HMs

who experienced above 15 years is higher level than HMs who experienced below 15 years in their opinion towards ABL. Hence the stated Null Hypothesis that there is no

significant difference among the HMs who experienced below 15 years and above 15 years in opinion towards ABL is rejected.

Table 1.4
Significance of Difference on the Mean Scores of Government School and Aided School HMs towards ABL

Category	N	Mean	SD	t-test	Remarks
Government School	38	67.21	7.90	17.75	SD #
Aided School	12	65.08	4.21		

Significant at 0.001 level

The above Table-4 reveals that there exists a high significant difference between the mean scores at 0.001 level. The above table reveals that the level of Opinion towards ABL of HMs belongs to Government School is higher level than the Aided School. Hence the stated Null Hypothesis that there is no significant difference among Government and Aided School HMs in their opinion towards ABL is rejected.

Findings

The salient findings of the study are i) All the HMs have positive Attitude towards SSA ii) there is high significant difference between Opinion towards ABL of Male and Female

HMs, the HMs who experienced below 15 years and above 15 years and Government and Aided Schools HMs .

Conclusion

The positive Attitude reveals that the HMs have more involvement in the each and every activities of ABL. Significant difference was found in Female HMs, more experienced HMs and Government HMs to their counterpart. This shows that the above HMs have more involvement in implementing ABL in their schools. It is understood from this that, there was Conducive Climate among the Heads of the Institution to make the SSA programme a success.

ACHIEVEMENT MOTIVATION AND SCHOOL ALIENATION OF PRIMARY SCHOOL CHILDREN.

Dr. C. Saroja

Lecturer, DIET, Vadalur, Cuddalore District

Introduction

Motivation is closely related to achievement. If this achievement motivation is developed, scholastic achievement of the students will be higher and alienation will get decreased which would act as a motivating force for further achievement.

Based on this assumption this paper aims at studying the effect on the integrated development of the children with reference to the achievement motivation and school alienation. The present study is pertained to the school alienation and achievement motivation of V standard students in Panchayat Union Schools and Aided Schools.

Need of the study

The alienated pupil, in Seeman's discussion, is one who perceives that he can do little if anything to influence his future in school and can see little relevance in the work required of him there. To the extent that he feels his teachers what they want to listen, he can be said to go along with the system or to 'play' with the system. Where there is little likelihood of being caught, the alienated student will readily violate school rules and regulations. Drop-out and stagnation in schools are the result of low achievement. Achievement motivation can be developed when students fail and they become alienated from school. So the researcher feels that this is the right time to find out the impact of school Alienation among students to involve them in the academic activities successfully.

Scope of the study

The more the alienation, the lesser will be the achievement motivation of the students. The lesser the school alienation the greater will be the achievement motive of the students. If the achievement motivation is developed properly,

there will be no stagnation and drop-outs. The motto "Education for All" motto will be achieved with the entire satisfaction of the public.

Objectives of the study

- i) To find out the level of achievement motivation of V standard students.
- ii) To find out the level of alienation among V standard students.
- iii) To find out the correlation between the achievement motivation and the alienation.

Design of the Study

The present study is an associational comparative study between achievement scores and the alienation scores of the V standard students. Two kinds of data are used for this study; they are School Alienation and achievement scores

Selection of Tools:

School Alienation Questionnaire: The School Alienation Scale developed by Burbach was used in this study. There are nine statements in this questionnaire (5 point scale)

Tool for Achievement Motivation: Rao Achievement Motivation Tool was used for this study with some modifications suitable to the primary school children. This test consists of 10 statements with two alternatives for each.

Sample Selection of this study

Three Panchayat Union Schools and two Aided Schools were randomly selected in Cuddalore District. The sample comprises of '80' students.

Data Analysis

Achievement motivation of V standard students in Panchayat Union Schools and Aided Schools:

Source	PU Schools	Aided Schools
Mean	67.1	69
SD	12.4	11
N	40	40
t-value	0.5757	

t - value is not significant.

Therefore they do not differ significantly in achievement motivation.

School Alienation of the V standard students

Source	PU Schools	Aided Schools
Mean	57.4	58.6
SD	9.9	9.1
N	40	40
t-value	0.443	

The t-value is not significant.

The students of V standard in Panchayat Union Schools and Aided Schools do not differ significantly in school alienation.

Correlation between the achievement motivation and school alienation

The correlation between the achievement scores and school alienation scores was worked out using Pearson's 'r' for the Panchayat Union School and the Aided School students separately. The values are $r = -0.040$ and -0.05 .

The correlation coefficients are negative though they are not significant. Therefore there is no significant correlation between the

achievement motivation and school alienations of the V standard students in the Panchayat Union School as the correlation coefficient obtained is negative (-0.04) .

There is no significant correlation between achievement motivation and school alienation of V standard students of the Aided school. The obtained correlation coefficients in negative (-0.05) .

Findings

1. The V standard students of the Panchayat Union Schools and the Aided Schools do not differ significantly in the achievement motivation.
2. The V standard students of the Panchayat Union Schools and the Aided Schools do not differ significantly in the School alienation.
3. There is no significant correlation between the achievement motivation and the school alienation among the V standard students of Panchayat Union School and Aided Schools.

Conclusion

1. Types of Schools do not influence in the level of achievement motivation and school alienation among primary school children.
2. There is no significant correlation between the achievement motivation and the school alienation among the primary school children.

PROBLEMS AND SOLUTIONS FOR THE QUALITY IMPROVEMENT IN EDUCATION

K. Ethuraju

Headmaster, PUE School, Edaiyakurichy (W), Andimadam Block,
Udayarpalayam Tk, Perambalur Dt.

Introduction

Developing countries like India expect steady progress in all sorts of life like education, culture and character. But people living in downtrodden areas are still languishing in poverty and illiteracy. Even today we see people who do not have any interest in Education. They do not enroll their wards in the school. Even if they enroll, the children do not attend to the school properly. Some become dropouts. When a sizeable number of adults and children stay out of schools, the vicious cycle of poverty becomes solid like iron. Our government has introduced so many social welfare programmes, like DPEP and SSA. Whatever the programme may be, the teachers should realize their importance and act with self-interest and devotion only then the society can improve, nation will improve, and the world will improve.

Punctuality

Teacher should be a model to the society in keeping time. He should follow the principle of punctuality.

Morning Prayer

Morning prayer should be conducted in time. All teachers should attend the prayer. Every day prayer should be presided over with an important person of that school. Day-to-day news, proverbs, general knowledge should be read out. All students should participate in the prayer with proper enthusiasm and sincerity.

School Campus

School campus should be decorated with beautiful ornamental plants. That will create the students' interest in extracurricular activity like gardening, planting flowering plants, and medicinal plants. Then the school environment will be a beautiful park.

Extracurricular Activities

All educational institutions should develop students' love for social service through scouts, Junior Red Cross, National Cadet Corps, and National Social Service League.

These movements should be exploited to promote national integrity and love for fellow humans. For this educational institutions like DIET should be involved.

Evening - Mass Drill

Mass Drill should be conducted daily for 15 minutes after the school hours. This system should be followed in all kinds of schools in our country.

Field Trip

This field trip should be conducted at least once in a week. It will create our interest in potential dropouts to attend the school. It will indirectly increase the rate of regular attendance. Every school should maintain a record of this.

Learning, Teaching and Reinforcement Activities

At the last period of the last working day of the week, school should conduct meeting for students to exhibit their learning attainments. Prizes and complimentary expressions can be given. It would be a better source to develop the students' skills.

Parent-Teacher Meet

In order to increase the roll and enrollment of the school, the teacher should go and meet the parents whose children do not attend the school. The teacher should give proper guidance and counseling to the parents and students. This will increase the rate of daily attendance and enrolment.

National Functions

Conducting and celebrating sports meet, literacy function, cultural programmes, and other National Functions will create a pleasant atmosphere of the school. This function should be conducted once a year. Taking photograph, videos, decorating the school with serial lights and other attractive items will enhance the interest of the public in the school.

Learning activities

Joyful learning, self-learning, activity based teaching: According to syllabus, on the basis competencies, stories, poem, drama and prose everything should be changed into joyful learning activities. Teachers should give chance to self-learning. It should not be a one way approach. The teacher can achieve cent percent by using the following multi-method of teaching:

- he should not sit on their seat while teaching,
- should have a close rapport with the children,
- should take the course book, but teach using his hints,
- should exploit the strength of dancing, singing and dramatizing to help children love what they learn,
- should give chance to all students to participate in the teaching learning process,
- should call the students by their name, and
- should speak with students in a pleasant mood.

Preparation of TLM

- ✧ TLM should be prepared with the help of students and the parents.
- ✧ TLM should be utilized according to the skill and competency.

Students Based Teaching

In the changing world, the teaching method should be changed every day, every period the teacher should adopt a new method and approach to teach the students. Therefore the Teacher should adopt and utilize the new method of teaching. He should be eclectic in approach. For this purpose, teacher-training

institution should give proper refresher courses and in-service training.

School-Society-Annual Day Function

The school is estimated or judged through its annual functions. This annual function should give vivid picture of school activities of past one year. If the students exhibit their attainment through their participation of the school function, they satisfy the public and society. Therefore this function should be conducted in a grand decorative manner. This will create a new picture in the minds of the people.

The Best Teacher

The best teacher award comes to him not by his degrees, but by the prizes and complimentary expressions of the public and society. So the teacher should cooperate, with public and do good for the welfare of the society.

Conducting Inter-Union, District Sports and Literary Association Meet

On the basis students' ability and skill, conducting inter-union, District Sports and Literary associations will help the students to improve their skill more. It develops the inter and mutual understanding between unions and districts.

Headmaster's Leadership

The headmaster should move with teachers without showing any partiality. Seniority, the only trait is not enough. He should have the interest to do anything for the improvement of the school. A special test should be conducted for the promotion of a Headmaster for every three years' duration. Suppose if the seniority is the main criteria, give them proportionate increment and salaries, but not Headmaster post. Headmaster post may be given to the teacher who really equips himself as a fittest person with skills in promoting the academic and transactional skills of the teachers. So the teachers should be a new reformer of the society. That is not impossible: have faith, and reform our new education society.

QUALITY ASSURANCE IN SCHOOLS

R. K. P. Kaliammal

Research Scholar, N. K. T. College of Education, Triplicane, Chennai

Introduction

“Education is the process of the individual mind getting to its full possible development. It is a long school which lasts a life time”.

Dr. Zakir Hussain

“By Education I mean an all-round drawing out of the best in child and man-body, mind and Spirit” reflects Gandhiji on education. The introduction of the concept, ‘Globalization’ has changed the face of our Indian Education.

Quality in Education

Oxford dictionary describes it as a feature of something especially one that makes it different from something else. In education it may focus - students, teaching, management, parents, and employees. According to Green and Harvey (1993) quality may be viewed in:

- 1) Terms of the exceptional i.e., highest standard,
- 2) Value for money,
- 3) A transformative, and
- 4) Terms of consistency - i.e., without defects and getting it right the first time.

Quality cannot be grasped or touched and it varies subjectively. To take education to the higher status,

- The goals must be well-defined ones.
- Proper administration.
- Well-planned curriculum.
- Proper infra - structure, Class room management.
- Transparent evaluation.
- Immediate feedback from the students.
- Counseling sessions should be paid attention.

The teaching learning process and classroom activities play a significant role in achieving the quality education. A three - tier monitoring system is a must to improve the quality of

education, at institutional level, state level and the national levels.

Quality Assurance at the Institutional level

- Well defined curriculum.
- Regular class tests and Assignments
- Regular attendance in the academics.
- Regularity in competitions such as Debates, Recitation, Speech etc.

Quality Assurance at State Level

- Arranging Staff improvement programmes.
- Reviewing of the educational process in all the institutions.
- Planned infrastructure.
- Evaluation.

Quality Assurance At National Level:

- Grading of institutions for public knowledge.
- Institution monitoring and accrediting courses.
- Monitoring International standards.

Quality can be assured through

- Creating conducive atmosphere for the teaching learning process, campus interview and staff interaction to motivate the students.
- Understanding development programmes for faculties.
- Systematically identifying and removing the defects in the system.
- To enhance the quality of education using multimedia and mass-media.
- To enable the self-appraisal system.

Quality must be given more importance in the forthcoming years. The emphasis on the quantitative education is less now and therefore the available resources must be utilized to improve the quality of education.

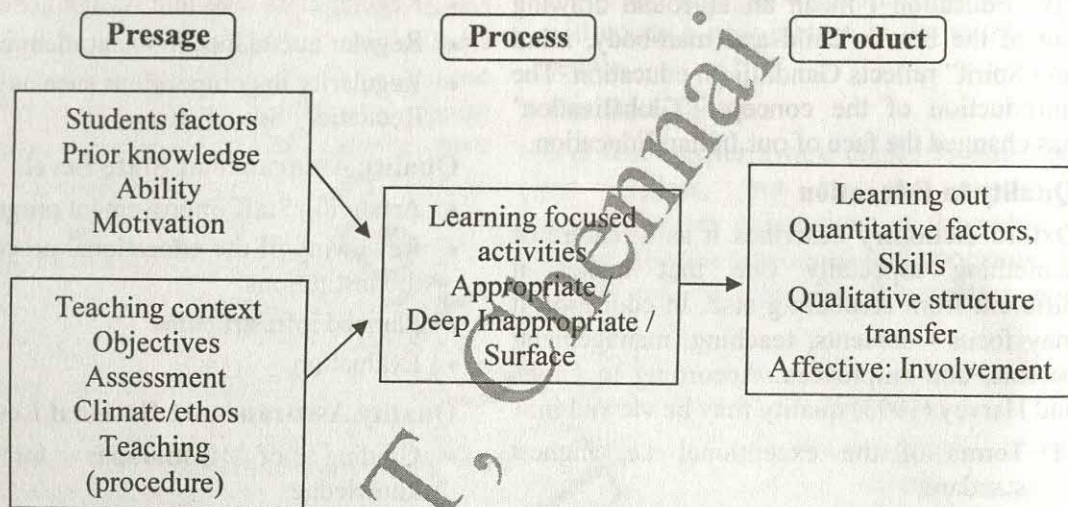
“Good teaching is getting most students to use the higher cognitive level processes that the more academic students use spontaneously.”

Learning new techniques for teaching is like fish that provides a meal today; reflective practice is the net that provides the means to earn food for one’s family and friends for the rest of one’s life. The key to reflecting on the way we teach is to base our think on what we

know about how students learn. Learning is the result of the constructive activity of the student.

The 3P model of learning and teaching process

According to Dunkin and Biddle’s (1974) linear model of teaching includes approaches to learning to Create an interactive system.



Assurance in Schools means that the value and expectancy are said to multiply not add, because both factors are needed to be present for motivated activity to occur. To conclude, we must all realize that good teaching is a collective responsibility, for which the

institution as a whole is ultimately responsible, and which it must support through proper resourcing, staff development and its reward systems, So that institutions are to be rewarded for enhancing and maintaining improved teaching and learning process.

PROBLEM-BASED LEARNING IN SCIENCE

P. Natarajan

Lecturer, DIET, Pudukkottai

Problem-based learning (PBL) is an exciting way to learn science and is readily incorporated into large classes in a lecture hall environment. PBL engages students in solving authentic science case problems, stimulating discussion among students and reinforcing learning. A problem-based learning environment emulates the workplace and develops self-directed learners. This is preferable to a mimetic learning environment in which students only watch, memorize, and repeat what they have been told.

Method for Teachers

Form Small Groups: You may decide to devote all or part of a class session to PBL, but students must form small work groups during that time. Ask the students to form groups of 3-5 people, or assign the groups yourself or by lottery.

Present the Problem: Present the students with a brief problem statement (preferably on a printed work sheet, an example of which is shown below), e. g., "A 28-year-old man appears to have osteoporosis." In some cases a video clip or specimen might be used as a trigger. Emphasize to the students that they are dealing with an authentic case history. Bizarre problems work best. Prior to class you should review the case history and arm yourself with data that can be released incrementally (progressive disclosure) as the case proceeds.

Activate the Groups: Ask the groups to brainstorm possible causes of the osteoporosis. Each group will have to discuss, review, or investigate the biology of bone, including the role of osteoblasts, diet, vitamin D, parathyroid hormone, growth hormone, calcitonin, kidney function, etc. This is when much learning occurs, as the students help each other understand the basic biology. PBL students must reflect upon biological

mechanisms rather than just memorize facts (as might occur in some traditional lecture-only courses). The teacher moves around the groups, providing assistance but not solutions. The groups may well explore avenues unanticipated by the teacher. This is highly desirable and should not be discouraged. The teacher should avoid controlling the agenda of the groups. Each group ranks its hypotheses in order of priority and prepares requests for more data. (E.g., for calcium deficiency hypothesis -- "What did he usually eat?")

Provide Feedback

Ask that a representative from each group place their top priority hypothesis or data request on the chalkboard (if already entered by another group, place their second choice, etc.). If this is not practical, ask for oral suggestions from the groups when the small group work is halted and the class is reconvened. Student suggestions may include -

- Low calcium diet
- Immobility
- Low density of vitamin D receptors
- Calcitonin deficiency
- Excessive PTH
- Chronic acidosis buffered by salts mobilized from bone

The small group work can be stopped and the teacher can briefly discuss the ideas with the entire class. It is important to value every contribution, to assist the students in analysis of the biology involved, and to provide further information. It is not likely that the students will solve a problem on the first pass, and the feedback from the teacher motivates the next round of small group work. The students could now be told that the man's lumbar spine density is 3.1 standard deviations below the average age-matched healthy female (osteoporosis = $2.5+SD$), his height is 204 cm,

his left middle finger is 10 cm, and knee films show open epiphyses. (The students should now be able to figure out that the man may still be growing at age 28). The cycle of small group work and teacher feedback can be continued during the current class session or on future occasions. *The key to managing a PBL session is providing continual feedback to maintain student enthusiasm while simultaneously prolonging the resolution of the problem to ensure that adequate learning occurs.*

At this point in our example the groups will likely focus on the hormones required for epiphysis closure and bone mineralization. They may ask you for serum estrogen levels (high) which will suggest estrogen-resistance. Were estrogen receptors defective? (Yes.) When a reasonable number of groups have solved the problem, you might request a brief written analysis from each group describing the biology involved in the case. Students may be asked to include certain key words in their reports. If you wish to further pursue this case at a later date you could tackle the genetics of the defect.

Method for Students

Effective problem-solving requires an orderly approach. Problem-solving skills do not magically appear in students as a result of teachers simply throwing problems at them.

Our students use the following heuristic: "*How to make a DENT in a problem: Define, Explore, Narrow, Test.*"

Define the Problem Carefully

What exactly are you trying to determine? Does the problem have several components? If

several, state them separately. Does everyone in the group agree with the way the problem has been framed? Ask group members to "think loud," as that slows down their reasoning and enables the students to check for errors of understanding.

Explore Possible Solutions

Brainstorm ideas that may contribute to a solution. Justify your ideas to group members. Clarify for them the biology involved. Have them paraphrase your ideas. Listen carefully to the ideas of other group members and give positive feedback. Make a list of learning issues. What do we know? What don't we know? Is this problem analogous to any past problem? What core biological concepts may apply to this problem? Assign research tasks within the group.

Narrow Your Choices

After developing a list of hypotheses, sort them, weed them, and rank them. List the type of data required to test each hypothesis. Give priority to the simplest, least costly tests. It is easier to get information on the diet of a subject than it is to do sophisticated biochemical tests.

Test Your Solution

Seek from your teacher the data that you need to test your ideas. If all your possible solutions are eliminated, begin the cycle again: define, explore, narrow, test. When you encounter data that confirm one of your hypotheses you may be asked to write a biological explanation of your solution and justify it using the available evidence.

HAS THE OPEN LEARNING ATMOSPHERE DEVELOPED THE INTEREST OF SCHOOL CHILDREN'S ACTIVITIES

Dr. Mrs. L. Radha

Assistant Professor (Senior Lecturer),
Directorate of Teacher Education, Research and Training, Chennai

Introduction

The world Development Report 2000 observes, "Knowledge is light weightless and intangible, it can easily travel around the world, enlightening the life of the people everywhere." The possibility of accessing various attributes of knowledge present and in use in different parts of the world facilitates enhancement and transfer of skills with an unimaginable speed and accuracy.

Learning has traditionally been regarded as an incremental process in which the tendency to make the correct response gradually increases with practice (Estes, 1960). A number of recent reports on learning in adults as well as children have tended to contradict this assumption. Studies of discrimination learning in children by Hill (1965), House and Zeaman (1960) all report that acquisition takes place in a sudden or all-or-none fashion. This phenomenon is not restricted to discrimination-learning problems. All-or-none learning has also been reported in studies of concept formation (Osler & Fivel, 1961), conservation of area and categorical judgements.

A well developed method rich in opportunities which help to develop the language skills, number concept and environmental concept is the need today. Therefore the present study was undertaken with the following objective. Learning is something that takes place like any other behavioral process. An effective learning process depends on active participation. Hence, what is learned should be translated in to action, else the investment and effort in learning will be in vain.

The objective is to provide an open learning environment to enable the primary school children to develop interest in learning that occur in their own pace.

Methodology

The study was conducted in the the primary school of Kilpennathur (Rural) and Chennai (Urban). Kilpennathur has been purposely selected as it is an educationally backward District and a DPEP District. A set of independent variables like type of area (Rural and Urban) and DPEP and non-DPEP District were measured with help of structured schedule and suitable scales.

The procedures followed during the research study are as follows:

Children from varying backgrounds were the samples. The age range of children was 5-10 years and they were grouped on the basis of age grade. The entire classroom called 'Demo School' that in a large hall, contained a variety of play equipments as well as display materials for different subjects. Through the activities the children were exposed to basic skills in Mathematics, English and Tamil. Though the children were encouraged to participate in the activities organized by the teachers, they were allowed to work on their own.

The principles on which the experiments were undertaken gave greater freedom to learners and to teachers to plan learning experiences, self-pacing in learning, individual attention, cooperative effort in learning, upgraded structure, encouragement to self learning, less emphasis on teaching and more on learning. Lastly the child's progress to be evaluated according to his own ability rather than on the basis of examination and close involvement of parents.

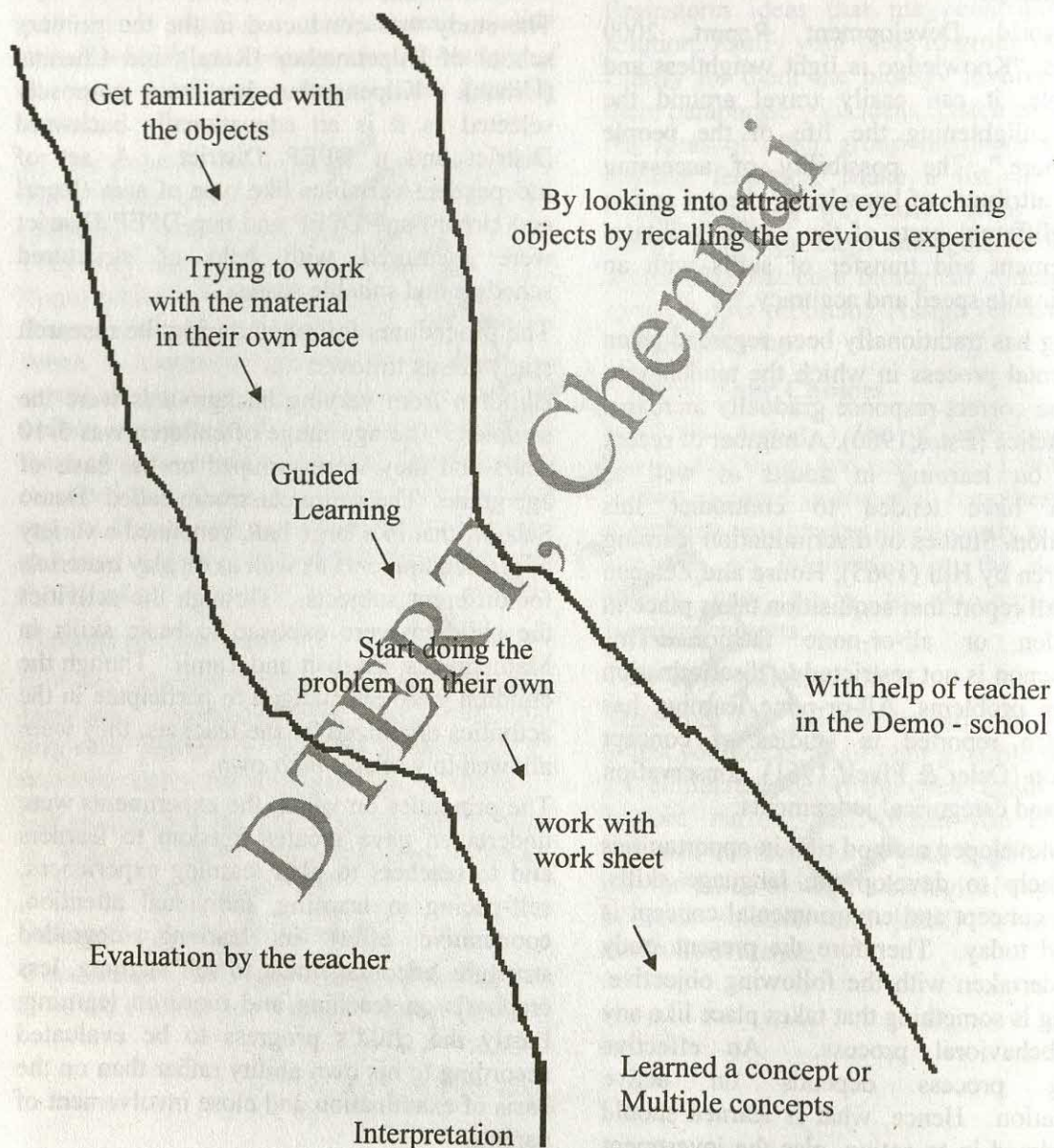
Materials

The display materials and play equipments include the fundamental skills in mathematics, addition, subtraction, multiplication and division; language skills include movable

alphabets, words and sentence framing, story developing, picture conversation, handwriting etc., environmental concepts include, solution, magnetic properties, solid and liquid, float and sink experiment, atom-structure, various

methods of solubility experiments, plants, animals etc. The case study of the children, exposed to open learning environment, was taken. Ten children from Kilpennathur and 10 from Chennai were analyzed and synthesized.

Fig.1 Children's learning process at demo-school



It is found from Fig. 1, that mental organization is a pathway to oral expression. The child learns on his own pace, by observing

the object, work with it, learns and then talks. Though a gifted child recalls immediately and sequence the events and classify them to

interpret on his own, while the low achiever show delayed recall or get recalled by the teacher in the demo-school come to oral

expression, taking his own time. Lot of time is given to the child in his demo-school through self learning materials.

Table-1 : Modification of children's classroom behavior

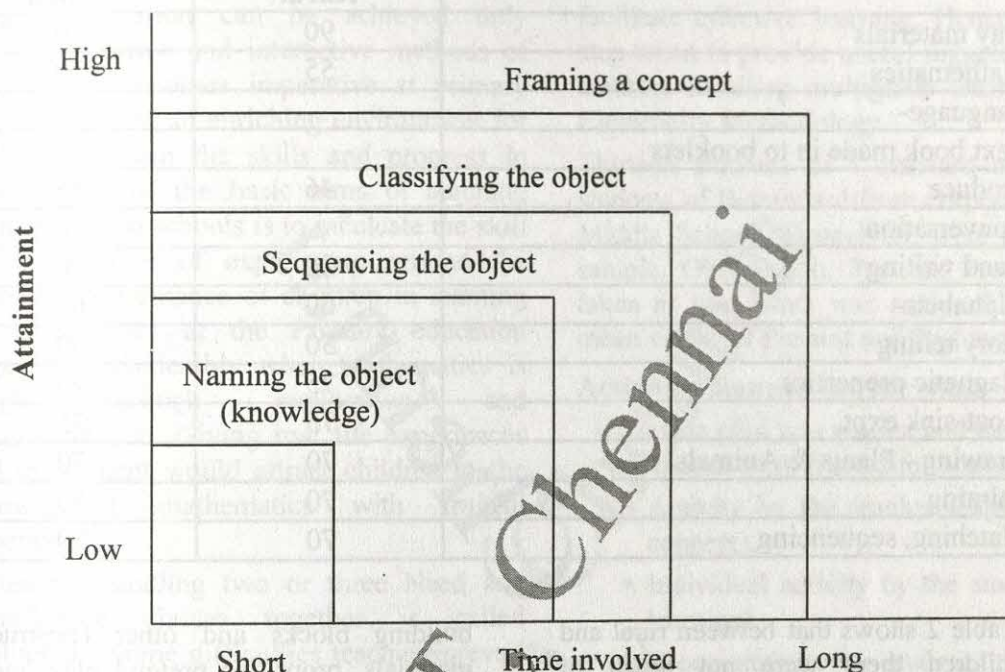


Table 1 depicts the behavioral changes of a child after an exposure to free learning atmosphere. The child frames a concept correctly by himself / herself after several stages of learning. That becomes permanent knowledge. The conclusion of the researcher is reflected in the data of student's achievement of experimental group who have been given freedom in learning.

Education widens the vision of the individual and orients them to outside world providing new opportunities to life. As a result the perception of pupil increases with the increase in the educational level.

Results and Discussion

The observation of the investigator on the children of experimental group was picturised in the diagrammatic representation.

The case studies of the children revealed:

- There were marked differences in their interest and participation in activities; those who earlier disliked school and had even left the previous school began enjoying coming to school.
- There was significant development with regard to social skills and values both in the school as well as at home.
- With the help of a parent, teacher discussion group, close contact was maintained between parents and teachers; the progress of the children was discussed with the teachers along with general discussions pertaining to education of the child.
- The parents were encouraged to visit the programme.

Table 2
Percentages of rural and urban respondents in School related attainments
(Primary children)

Interest in Participating in Activities		Respondents (%)	
		Rural	Urban
a.	Play materials	90	90
b.	Mathematics	55	70
c.	Language-		
	Text book made in to booklets		10
	Produce	46	75
	Conversation		
	Hand writing	30	30
	Alphabets	60	60
	Story telling	30	60
d.	Magnetic properties	75	75
e.	Float-sink expt.	75	75
f.	Drawing - Plants & Animals	70	70
g.	Painting	70	70
h.	Matching, sequencing	70	70

Further Table 2 shows that between rural and urban children there were not much of differences in their school related attainments. But the rural children did not show interest in responding to booklets (Printed materials) as they are always looking into textbooks. Urban children show much interest in responding to storytelling method as revealed by 60% of respondent. Most of the respondents developed more social skills due to these scientific methods and values also were developed much by this approach. The finding implies the need for developing more self learning materials and form Demo-school situation for favourable perception, attainment and development of subject oriented skills and social skills in school children.

- Children spend most of their playing and working with materials or other children. They do not wander aimlessly, and they are not expected to sit quietly for long periods of time.
- Children have access to various activities throughout the day. Look for assorted

building blocks and other construction materials, props for pretend play, picture books, paints and other art materials, and table toys such as matching games, pegboards, and puzzles. Children should not all be doing the same thing at the same time.

- Teachers work with individual children, small groups, and the whole group at different times during the day. They do not spend all their time with the whole group.
- Children have an opportunity to play outside every day. Outdoor play is never sacrificed for more instructional time.
- Teachers read books to children individually or in small groups throughout the day, not just at group story time.
- Curriculum is adapted for those who are ahead as well as those who need additional help. Teachers recognize that children's different background and experiences mean that they do not learn the same things at the same time in the same way.

EFFECTIVE TEACHING IN MATHEMATICS FOR THE BETTER ACHIEVEMENT IN ELEMENTARY CLASS ROOMS

J. A. Joice Princess

Lecturer, DIET, Munaijipatti

Quality education can be achieved only through effective and interactive methods of teaching. It becomes imperative at primary stage to provide an enriching environment for children to learn the skills and progress in school. One of the basic aims of teaching mathematics in schools is to inculcate the skill of qualification of experiences around the learners. Performance of children in learning of mathematics at the Primary education improves considerably when mathematics is taught through exploration and experimentation. Giving real life experiences and experiment would attract children to the learning of mathematics with fruitful experiences.

A teacher handling two or three Need and Significance classes together is called Multigrade. Some difficulties teaching prevail in the class room. In II standards in the achievement of the competency, "Place values of two digit numbers". Teachers handling in II standard feel very difficult to teach in multigrade situation. It is a hard one for most of the teachers handling multigrade teaching in maintaining better class room control and quality in education.

There is a need of guidance to the teacher handling multigrade teaching in primary level about classroom management and teaching techniques. A teachers needs are likely to be satisfaction of doing a good job of creating learning situations for maximum benefit of students. Necessary steps are required to

facilitate effective learning. Hence here is a step taken to provide useful suggestions to the teachers handling multigrade teaching in the Elementary Methodology.

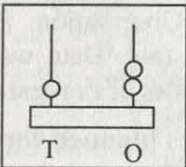
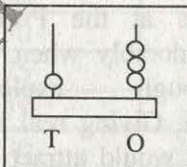
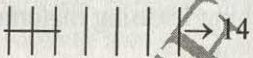

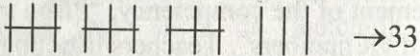
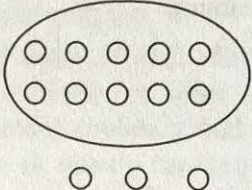
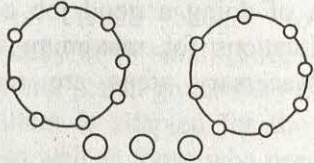
Thirteen students of I standard and sixteen students of II standard from corporation, New Middle School, Tirunelveli, were selected as sample. Observation, Pre-test, Post-test were taken as tool. Data was analysed by finding mean values of Pre-test and Post test scores.

Activities planned for the study

1. Lesson plan was written and the following activities were framed for both the classes.
 - Activity by the teacher (explaining the concept).
 - Individual activity by the students (self learning)
 - Group activity by students to students (Reinforcement)
 - Activity by teacher and the students.
2. Teaching learning materials were prepared as follows.
 - Teaching materials for instruction
 - Self Learning materials for individual activity.
 - Learning materials for Group activity.
 - Evaluation cards for individuals.
3. Seating arrangement was made as following I Tr II

Following activities were practiced in activity based learning.

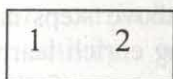
Competencies

Std I	Std II				
Finding place value of Number from 10 to 19	Finding place value of two digit numbers				
Motivation for both the classes I & II Students were asked to come near and around teacher. Cards with Numbers from 0 to 99 were shown to the students and the students were asked to identify the numbers in the cards.					
Activities for Std I Activity 1. (Activity by teacher) The teacher explained how to find place values from 10 to 19 with spike abacus by putting beads according to the number. Example 12 was explained as 	Activities for Std II Activity 1. (Group activity) Students were arranged in groups. One abacus of beads and number cards were given to each group. Students were instructed to put beads in the abacus according to the number. For example, if the given number card is 23, Students put beads as follows. 				
Activity 2 (Activity by the students) Straws 10-19 and a rubber band were given to each student students made them into bundle of 10 straws and kept the remaining separately. One bundle means ten and the remaining means ones. Ex. If 14 straws were given, students made 1 bundle and 4 straws separately. 	Activity 2 (Activity by the teacher) Teacher explains the place values with picture charge.  → 22  → 33 etc...				
Activity 3. (Activity by the teachers and students) One packet of beads and a number card from 10 to 19 were given to the students. Instructions were given as follows. Take the beads according to the number in the card. Separate the beads in tens and units. For example, If the number in the card is 13 the students arrange.  And teacher explains 1 ten and 3 ones.	Activity 3. (Individual activity by the students) Teacher explained place value of a two digit number with beads in chains. Students were instructed to write the number in the questions card for the given beads individually.  Example, if were given, students wrote <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>T</td><td>O</td></tr> <tr> <td>2</td><td>3</td></tr> </table>	T	O	2	3
T	O				
2	3				

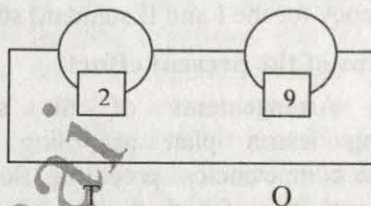
Activity 4 (Group Activity)

Students were arranged in groups place value board was given to each group. The teacher instructed the leader of the group to write a number (10 to 19) with a chalk piece other said the place value.

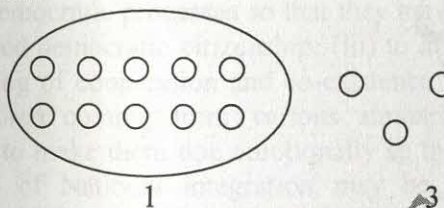
Example: If 12 was written in the board student's answered 1 tens and two ones.

**Activity 4 (Activity by teacher and the students)**

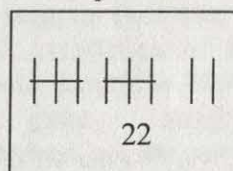
Place value box with number card from 10 to 99 was given to each group students are instructed to rotate the circle box to get ones and tens separately. In the circles Numbers from 1 to 9 marked, If 29 is given, by rotating the circles to get 2 tens and 9 ones. Example:

**Activity 5 (Activity by the teacher)**

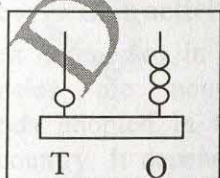
Teacher explains place value by a picture chart

**Activity 5 (Individual Activity by the students)**

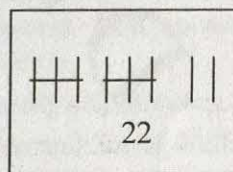
Activity cards with the pictures were given to the students individually and wrote the numbers below the picture.

**Activity 6 (Activity by the students)**

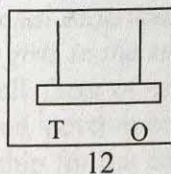
Post card size activity cards with a picture of abacus given to each student, students had to fill the blanks. Similar work with a number card given. Students were asked to draw the beads in the Abacus Example

**Activity 6 (Activity by the teacher and the students)**

Similar work given by giving number cards, Students were asked to draw pictures below the number.

**Activity 7 (Activity by the teacher and students)**

Post card size activity cards with a number and a picture of abacus given to the students. For example



Students had to fill the blanks

Activity 7 (Activity by the students)

Two digit numbers were kept in a small box. Students were ask to take one number and draw pictures to denote ones and tens.

Findings

The performance in the post test showed improvement in the marks. Using sufficient suitable self learning materials in activity based method of teaching with well planned lesson plan for the common competencies and setting up proper seating arrangement in multi-grade teaching promote achievement in the competency for the I and II standard students.

Net gains of the present effort

Seating Arrangements of the students, preparing lesson plan according to the common competencies, preparing flow chart for the activities of both the classes help the teacher to engage the students without any loss of time.

- ✧ Learning occurs through child centred participatory method in the multi-grade situation.
- ✧ Self learning activities create involvement in learning.
- ✧ Activity based method give happiness, interest, mental satisfaction and encouragement to the students.

Totally all the above steps are considered as effective teaching enrich learning process and enhance achievement of the competencies. Thus activity based methods of teaching motivate the students in Elementary and Promote quality in Elementary education.

DTERT, Chennai

IMPROVING PRIMARY CLASSROOMS BY CO-CURRICULAR ACTIVITIES

* Mrs. G. Vijayakumari and ** K. Nachimuthu

*Research Scholar, **Lecturer

Department of Education, Periyar University, Salem

Introduction

Extracurricular activities are viewed as co-curricular activities, and supposed to be an integral part of curriculum. Whichever experience or activity has educational importance that is one part of curriculum. So these activities in fact are co-curricular activities. The objectives of the co-curricular activities are; (i) to make moral feeling high of total educational programmes of school and its personnel; (ii) to provide self-government to students, and valuable experiences in the uses of democratic processes so that they may have skilled democratic citizenship; (iii) to develop feeling of cooperation and co-existence in the children coming from various atmospheres, and to make them one emotionally so that the path of National integration may be made wide; (iv) to improve relations of school and society together and to encourage society for taking interest in programmes of schools; (v) to help children for their all-round development; (vi) to prepare children for proper utilization of their leisure and (vii) to develop individual skill according to their activities given by the teacher.

Meaning of Co-curricular activities

India is the largest democracy in the present world. Democracies are nourished by democratic methods adopted in the various institutions of a country. It depends more on the quality of its schools than on the educational contribution of any other single social institution with depend upon the educational experiences provide to the pupils. *Co-curricular activities form a vital link in the pattern of blended educational experiences so necessary for all boys and girls in the modern Indian school.* To cover all facts of growth pattern and ensure balanced development of the child and good citizenship for the country educative experiences comprise experiences

inside as well as outside the classroom, curricular as well as co-curricular. The Education Commission also stressed "We conceive of the school curriculum as the totality of learning experience that the school provides for the pupils through all the manifold activities in the school or outside, that are carried on under its supervision". The art of living is much more comprehensive concept than the acquisition of knowledge, however intelligently planned. It includes training in the habit of graces of social life and capacity for cooperative group work. The Department of Primary Education was set up in 1964 by NCERT and it re-organized in 1975 and a separate child care unit was set up. The Indian Association of Primary School Education was formed in 1964 and the IAPE teacher gives suggestions and recommendations on the various aspects of primary school education.

Types of Co-curricular activities

Various educationists have tried to classify these student activities. The co-curricular activities are divided into 12 groups, viz.:

1. Activities related with participating in Management and control of School organization
2. Community activities and Student unions.
3. Religious and Social Welfare Clubs.
4. Social activities and folk songs.
5. Activity relating to Physical Training.
6. School Publication.
7. Activities relating to Play and Debate competitions.
8. Activities related with music clubs.
9. Relating to subjects literacy competitions.
10. Various clubs.
11. Assembly leaderships and
12. Excursion and other hobbies.

Principles of Co-curricular Activities

The following are main principles:

- a. **According to Needs:** The programme should take into account the special or unique of a particular school. No two schools are exactly alike. The programme of each must be adjusted to the particular need to its own students to local resources.
- b. **Democracy of Opportunity:** An opportunity for all to think and active without fear of ridicule, is to be provided with the belief that every individual, if given the chance, can make at least some contributions to the common welfare and to his own happiness.
- c. **Maximum activities:** The number of such activities should be the maximum that a school can afford, and they should be as varied as possible. This will help satisfy the diverse needs of large number of student in a school.
- d. **Minimum Restriction:** All interested students should be permitted to participate in different activities to the extent to which they are capable of predicting with some measures of satisfaction and success. The nature of the activities may make some restrictions necessary, but they should be held to a minimum.
- e. **Motivation:** Co-curricular activities should furnish a rich source of motivation for class instruction. Learning to do percentage problems in a mathematics class may be strongly motivated for some pupils by using problems involving pitching averages in base ball or foul selecting in basket ball.
- f. **Wide Free participation:** Through personal conference and group discussion, we should ensure distribution of participants as widely as possible without compulsion.

Challenges of Co-Curricular Activities

The following are the important challenges of the co-curricular activities.

i) **Organization related with student self-governance:** It is regulation of matters regarding arrangement in schools and conduct by elected representatives through students themselves from local student folk. In the guidance of teachers the following objectives may be attained from self-governance:

- to develop general moral feeling in school
- to prepare children for leading active life in democracy
- to make children more and more self-directed or motivated
- to prepare for having feelings of respect towards power
- to develop their special qualities and to help administration works
- to organize the school assembly in disciplined manner

ii) **Activities regarding Social Welfare:** The social service club, Cooperative activities, Donation of Labour, Scouting (Cub, Scout, Rover) and girls guiding (Blue Bird, Girl Guide Company), Junior Red Cross and First Aid group are the different activities that regarding the Social Welfare.

iii) **Cultural Activities:** Under these activities some worth studying activities, folk songs, folk dance, *kirtanas*, *bhajana*, other programmes related with music. There is a great importance of these activities is utilizing leisure. It can evaluate the vocational skills and cultural values of the students. A separate committee should be separately fixed for their cultural affairs.

iv) **Literary activities:** Under these activities come debating competitions, poet-assemblies, and poem competition, lecture, essay, and story competition, antyakashry, seminars etc. By these activities, various mental powers of children are imparted training in clear thinking, recalling, logic, analysis and decision making etc.

v) **School Publication:** School magazine, Newsletter etc. provide important opportunity to children for creative writing. Through these, pupils are provided with rich and valuable educational experiences. The following are the functions of school publication.

- to give knowledge to society regarding functions of school
- to publish events and information of school
- to express the opinion of school
- to encourage appropriate activities
- to develop the creativity of the students

vi) **Physical Activities:** Games, Sports, PT and exercise are come under this category. Through games, body of child is made healthy, but in school, importance of these is not only due to physical view, notwithstanding also with psychological, social, intellectual and ethical view.

vii) **Subject Groups:** These groups are related with subjects taught in schools. For e.g.; Science group, Mathematics group etc., through these groups, matters related with difficulties of subject may be removed and

importance of this in life etc., may be clarified.

viii) **Miscellaneous activities:** Hobby, picnic, excursion, school-days, assembly, Nursery growing, photography, stamp-collection, coin-collection etc., are come under this category that through these, children awake various types of the interest in them.

Conclusion

According to modern thought, student activities have been granted an integral part of curriculum, but in the views of teachers and guardians no specific change has come. Till now, many teachers and parents take them as sheer wastage of time, money and power. In our country, this view is an obstacle in the success of these. Besides it, due to lack of money also, man useful activities are not able to make their place in the school. Lack of other means with school and priority of examinations also create hindrance in the progress of these activities. But upper-primary school authorities can play an important role in removing these hindrances and along with success of these may be made a sure shot.

INNOVATIVE PRACTICES IN ELEMENTARY EDUCATION - AN INSTITUTIONAL PERSPECTIVE

Lalitha Venkatraman

PhD scholar, SRM School of Teacher,

Education and Research, SRM University, Kattankulathur, Chennai

If you learn only methods, you'll be tied to your methods, but if you learn principles you can devise your own methods

- Ralph Waldo Emerson

Paradigm Shift

Instruction, a vital classroom activity, has over the years, acquired a paradigm shift to go from meaning just 'the purposeful direction of the learning process' and moving beyond 'the way we do it is the best because this is the way we've always done it', to a more dynamic and fluid concept. This abstract seeks to combine innovation with the models and methods of instruction in elementary schools today.

Innovative practices, principles of teaching / learning and connect principle

The crux of adoption of innovative practices in schools today is the 'connect' principle - this means that the chosen practice must be associated or connected with specific desired outcomes. It must be kept in mind that most of the innovative practices in vogue today have been formed after a thorough understanding of the principles of teaching/learning. Hence knowledge of the principles of teaching/learning is vital to developing and also implementing innovative practices in a school.

A few innovative practices

Educators around the world have developed a number of models of instruction, each differing in nature and scope, depending on the targeted learning. This article identifies a few innovative practices that have served well in achieving some of the learning outcomes. This list is far from comprehensive but only seeks to initiate a dialogue and potential brainstorming sessions to develop the appropriate practical lessons keeping in mind

the desired goals set for each grade of the elementary school.

Multiple intelligence theory

The multiple intelligence (MI) theory teaches teachers to understand what children could do well, instead of what they could not do. Gardner (1983) builds on the MI theory and says that individual differences among kids are extremely important while approaching the process of 'Instruction' and hence individualized innovative practices are crucial here.

Cross curricular approach

Another method of instruction is the cross curricular approach where the focus is not on discrete, compartmentalized subjects, but on cutting across subject-matter lines to focus on comprehensive life problems into one active project, since that is how children encounter subjects in the real world.

Elaborating, cross curricular approach enables children learn many subjects, one through the other, leading to integrated learning. For example, a child may be asked to portray a Russian and talk about himself. A combination of various subjects (e.g. the history, geography and possible scientific exploits and contributions of Russia) are learnt and presented through personalized expression.

This method of teaching/learning is like getting a new pair of lenses that make learning a lot more exciting, helping the students take control of their own learning, preparing them for lifelong learning.

Collaborative learning

Collaborative learning through 'Show and Tell' programs: Based on the theory that sharing of experiences leads to greater

bonding between individuals, this program encourages 'students to bring an object (a book, toy or even a pet) from home and talk about it for a few minutes. This form of classroom practice develops a child's language and communication skills and also builds up self confidence, allowing him to get a sense of identity. Peer teaching also develops a sense of self-esteem.

Total Physical Response (TPR)

Total Physical Response is a technique for learning rhymes and other lessons where the whole body is used to mime the words being learnt: for instance, the use of sounds and action to depict various animals or even items of everyday use. Recall the nursery rhyme 'I am a teapot...'. The children use their entire body while reciting the rhyme! TPR has been proved to be very effective in that the long term retention has been significant (even years after a skill has been acquired, the knowledge remains).

The grammar chants and oral drills of TPR - Are we reinventing the wheel?! (or is it a case of 'old wine in a new bottle'?)

Nature walk

Nature walk - combining studies with the outdoors: Nature walks or field trips are organized in groups, allowing for a different perspective to learning of geographical features, flora and fauna. Such 'on-location' group learning promotes geo-literacy and builds up ability to identify and recognize things that have been learnt in textbooks. For instance, the Geo-literacy Project has been started as a web based initiative by (<http://www.geolit.org/>) in order to combine local history, geography, ecology and geology. These projects highlight the features of the local region and allow students to identify connections with larger geographies and ecosystems.

Aural and visual techniques

Aural and visual techniques: Schools are encouraged to use audio and video aids to help understand abstract concepts and develop

problem solving skills. Such videos are followed by discussions with the class where the children are encouraged to express their feelings on what they have just seen/heard.

Micro-teaching by peers

Micro teaching by peers: This technique appears more effective in higher primary classes, wherein children are asked to study portions of a subject on their own and then explain it to the others. This builds up self confidence, mastery over the subject and also enhances communication skills. For students who require additional study time, such a technique is highly effective in communicating the theoretical and practical aspects of a subject.

Enrichment classes

Enrichment classes typically consists of non routine problem solving in the teaching of perceived 'hard' subjects like mathematics and science.

'One solution does not fit all': Surveys on the status of schools with respect to innovative learning have shown that a large majority of schools have adopted various forms and models of innovative practices. However, keeping in mind that 'one solution does not fit all', the complete success of the introduced innovations at these schools remains unclear. A discussion or debate on the effectiveness of the innovative practices (in schools that have already introduced them), as well as further innovative practices that can enhance elementary school learning, needs to be initiated.

Parameters

We must caution schools that seek to adopt such practices to be more discerning and practical on the choice of the learning processes. It is imperative that schools tailor the 'benchmarks' to individual school profile and preferences and not implement them blindly. Acquiring the right kind of personnel (teachers) is an imperative and as there are enthusiastic and not so enthusiastic teachers,

establishment of a continuous training program is critical to the success of the adoption process. Teachers must be well aware of these theories and trained rigorously to raise their comfort level.

Conclusion

High quality professional development is a mandate and a necessity. Teachers need continual support for sustainable professional development that can turn the most reluctant teachers into enthusiastic users of the classroom initiatives. Schools interested in enhancing their elementary school curriculum must ensure that there is a continuous testing of implemented practices, along with a

dynamic loop of feedback and change, depending on the individual requirements that ensures modifications can be made and teacher competency increases. A constant feedback loop needs to be maintained between the administration, teachers and students so that the learning process is continuous.

Schools should share their innovative projects, teaching methods and best practices so all students benefit from them. Innovation is defined in research as 'the process of translating new ideas into tangible societal impact' and so a discussion on how to achieve desired outcomes through innovative best practices should be initiated.

DTERT, Chennai

ENVIRONMENTAL EDUCATION - THROUGH ACTION SONGS IN RURAL PRIMARY SCHOOLS

K. V. Mahendran

Assistant Teacher, Panchayat Union Middle School, Mullvadi, Arcot Union, Vellore District

Rural Education

As rightly said by Gandhi, India lives in villages. In spite of all the efforts made by the Government, there is much to be accomplished in terms of quality in the teaching-learning process. Still more methods are to be devised to vitalize the rural education at the primary level and upper primary level.

Technologies and innovative methods of teaching should enter into the Rural Elementary Education. Moreover the concepts are to be fed to the learners in a joyful manner.

Environmental Education in Elementary School Curriculum

The goals of environmental, education as endorsed in the inter-governmental conference organized by UNESCO/UNEP in Thilisi USSR in October 1977 are to provide every person with opportunities to acquire knowledge, values, attitudes, commitment and skills needed to protect and improve the environment.

- To create new patterns of behaviour of individuals, groups and society as a whole towards the environment. Environmental education should utilize diverse learning environments and a broad array of educational approaches to teaching/learning with lots of practical activities including environmental games.
- At the primary level the following objectives have been identified:
 - To make the child aware of his environment in a very simple manner and his/her place in it.
 - To arouse interest in the people around him and develop understanding of the environment.

- To develop skills for learning about the environment i.e. observation collection and classification.
- To develop willingness to work individually and in groups to maintain and preserve the environment.
- To foster development of positive attitude to pupil towards their environment.

Learner Group

The target group of the author is the learners who come under pre-operational stage (3 to 8 years of age). At those stage the curriculum is at best indicative a guide and how to put it across calls for a fine sensitivity to the local situations. In order to import environmental dimensions to children's learning, the opportunities available in and around the school should be used, thus backing all learning with the daily life experiences of the children.

Environmental Education through Songs

Keeping the views of Thilisi conference and Rural Elementary Education, the author has developed the channel of teaching Environmental Education through songs. He has classified the Environmental Education concepts in a sequence, in such a way that the students would enjoy a journey starting from sky and ending at society through the passage of planets sun, moon, rainbow, plants, birds, animals, human beings, their professions celebrations and the society as a whole. The sequence of arrangement of concepts is enjoyable one.

The songs developed by the author made the children aware of his environment in a very simple manner and they also create interest among the students to understand the

environment around him. The songs are very simple and rhyming.

Contents and Songs

The textbook context was developed on the basis of skills and competencies. Similarly these songs were also developed on the basis of the competences. They were sequentially arranged in an attractive way. Since the songs receive more aesthetic sense, the children sang them very easily.

Salient Features of Song Collection

- The words are very simple and rhyming.
- This collection is accompanied with an audio CD.
- Free hand movements and body movements are also accompanied with the songs.
- The songs stimulate the search for knowledge.
- The songs impart knowledge among the learners.
- Students get interest and self-satisfaction while singing the songs.

- The songs are based on the competencies envisaged by minimum levels of learning.
- The students acquire the knowledge, without knowing that they are learning.
- The songs concentrate more on the physical and mental age of children.
- Since the songs are accompanied with music, the students easily by heart the songs as well as the concept.
- Since the words used in the songs are practiced in the daily life of the students they do not find the words and songs to be difficult.
- These songs develop the imagination and creativity among the students.
- The simple words of the songs give huge concepts.
- These songs can make the students to acquire the learning objectives.
- The interest created among the students makes them away from absenteeism.
- This method of teaching concepts is joyful.
- These songs develop memory skills and personality development among the students.

INNOVATIVE TEACHING-LEARNING STRATEGIES TO ENHANCE QUALITY OF ELEMENTARY EDUCATION

P. Abhilash Babu

M.Phil. Research Scholar, Department of Education Technology,
Bharathiar University, Coimbatore

In any society, if education has to reach its aim, it has to direct and mould the changes by improving the quality of educational practices. Teaching-learning process is the crux of any educational endeavour. Effective teaching-learning strategy is essential to ensure the quality of education. Otherwise we cannot achieve the educational goals envisaged in the curriculum to meet the social and national needs, especially the individual's own needs. In order to transact the curriculum without losing quality, apt strategy is indispensable. So, it is high time to think about innovative strategies to impart knowledge.

Developing countries like India needs citizens with emotional-intelligence and creativity rather than those with mere intelligence so as to get the real advantage of human resource utilization. That is why we the teachers have to adopt new strategies, which help to create emotionally intelligent and creative people.

Two strategies are described below which ensures quality of elementary education.

Brainstorming Strategy: Fostering Creativity and Generating the Extra-ordinary

Brain storming strategy is an approach to enhance creativity. It is a group process that encourages creativity by stimulating a large number of ideas - even wild ideas - and suspending judgement until the process is completed. Although it is a group technique, it can be applied to individual problem solving as well.

Creativity, in a nutshell, is the ability to generate novel solutions to problems. To be creative, a solution must be practical and sensible as well as original. Creative thinking requires *divergent thought* characterized by *fluency, flexibility, and originality*. Fluency

refers to the total number of solutions produced. Flexibility is indicated by the number of different types of solutions produced. Originality refers to how novel or unusual solutions are.

Five stages often seen in *creative problem solving* are, orientation, preparation, incubation, illumination and verification. Not all creative thinking fits this pattern.

- i) **Orientation:** As a first step, the problem must be defined and important dimensions identified.
- ii) **Preparation:** In the second stage, creative thinkers saturate themselves with as much information pertaining to the problem as possible.
- iii) **Incubation:** Most major problems produce a period during which all attempted solutions will have proved futile. At this point, problem solving may proceed on a subconscious level: While the problem seems to have been set aside, it is still "cooking" in the background.
- iv) **Illumination:** The stage of incubation is often ended by a rapid insight or series of insights. These produce the "Aha!" experience, often depicted in cartoons as a light bulb appearing over the thinker's head.
- v) **Verification:** The final step is to test and critically evaluate the solution obtained during the stage of illumination. If the solution proves faulty, the thinker reverts to the stage of incubation.

The essence of brainstorming is that production and criticism of ideas are kept separate. Note that brainstorming is not expected to work when other people evaluate one's ideas. A friendly atmosphere that supports wildly divergent ideas is assumed to

be effective. Matlin (1994) notes that psychologists have become somewhat skeptical of the brainstorming concept, however. For one thing, research evidence suggests that people who are working alone are often more creative than people who are working in groups. Moreover, the ideas produced by brainstorming are frequently poorer in quality than those produced by people working alone. Let the whole class be divided into heterogeneous groups, the problem be presented and thus encourage divergent thinking in group problem solving. Each person is encouraged to produce as many ideas as possible without fear of criticism or evaluation (Buyer, 1988). Only after a brainstorming session is complete are ideas reconsidered and evaluated (Haefele, 1962). As ideas are freely generated, an interesting cross-stimulation effect takes place in which one participant's ideas trigger ideas from others. The four basic rules for successful brainstorming are:

1. Criticism of an idea is absolutely barred. All evaluation is to be deferred until after the session.
2. Modification or combination with other ideas is encouraged. Don't worry about giving credit for ideas of keeping them neat. Mix them up!
3. Quantity of ideas is sought. In the early stages of brainstorming, quantity is more important than quality. Try to generate lots of ideas.
4. Unusual, remote, or wild ideas are sought. Let your imagination run amok!

Jigsaw Strategy to Develop Emotional Intelligence

Jigsaw is a cooperative learning strategy, which was originally developed by Aronson (1978). It has since been adopted by a number of researchers and practitioners in a variety of ways. Each student within a team is given one piece of information to be learned and each student is responsible to teach his or her section in the team. When all the pieces are

put together, the students should have the whole picture. Hence the name Jigsaw.

The foremost advantage of Jigsaw classroom is that no student can succeed completely unless everyone works well together as a team (Aronson, 1978) Johnson, *et al.* (1991) found that student's cooperative skills, social skills and individual accountability increased through Jigsaw lessons. Moreover, Jigsaw strategy encourages listening, engagement, and empathy by giving each member of the group an essential part to play in the academic activity (Aronson, 2000).

The process of Jigsaw prepared by Aronson *et al.* (1978) is as follows:

- ✧ Divide the class into team of four or five
- ✧ Divide the material to be covered into four or five equal parts
- ✧ Assign a colour or any other index to each of the members of the team (red, blue, orange likewise) - Base Group
- ✧ At the next session all the same indices come together - Expert Group
- ✧ The original teams come back together and join with another team
- ✧ Have a final debriefing session with the whole class to check that all students have understood all the material.

Aronson's structure of Jigsaw Strategy modified by Salvin (1985) and Further modified by researchers and they suggest 10 easy steps to implement. Jigsaw strategy in ordinary classrooms is as follows:

1. Divide the students into Jigsaw groups with 5 or 6 persons. The groups should be diverse in terms of gender, ethnicity, race and ability.
2. Appoint one student from each group as leader. Initially, this person should be the most mature student in the group.
3. Divide the day's lesson into five or six segments.
4. Assign each student to learn one segment, making sure that students have direct access only to their own segment.

5. Give students to read over their segment at least twice and become familiar with it. There is no need for them to memorize it.
6. From temporary *expert groups* by having one segment from each Jigsaw group, join other students assigned to the same segment. Give, students in these expert groups, time to discuss the main points of their segment and rehearse the presentations they will make to their Jigsaw group.
7. Bring the students back into their Jigsaw groups.
8. Ask each student to present her or his segment to the group. Encourage others in the group to ask questions for clarification.
9. Float from the group to group, observing the process. If the group is having trouble (e.g.: a member is dominating or

disruptive), make an appropriate intervention. Eventually, it is best for the group leader to handle this talk. Leaders can be trained by whispering an instruction on how to intervene, until the leader gets the hang of it.

10. At the end of the session, give a quiz on the material so that students quickly come to realize that these sessions are not just fun and games but really count.

Conclusion

Existing methods of teaching learning process is rooted on cognitive skills only. The affective and psychomotor domains of the learners are totally neglected. Moreover, the teacher seems to stick on the usual lecturing method to convey ideas, concepts and facts etc. In fact, such an approach will not be apt to highlight the quality of education. There is the need of the innovative strategies lies.

INNOVATIVE ENGLISH TEACHER FOR IMPROVING ORAL SKILLS AMONG PRIMARY SCHOOL CHILDREN

M. Leonard Ashok

Lecturer in English Education, Dr. N.G.P. College of Education, Coimbatore

Elementary Education

The development of a country absolutely depends on the quality of its elementary education. What takes place in class-rooms and other learning environment is fundamentally important for the future well being of the learner.

Quality is the heart of education. Quality at elementary level cannot improve by itself, as it requires reformation in teacher training, improvements in facilities and infrastructure, curriculum, evaluation system and many more things, which need to be updated according to the changing conditions and requirements.

Importance of English today

English has earned an anomalous importance today. Need for English in the employment market has a great emphasis on our young graduates ability to speak English, fluently and also accurately. Effective speaking skill is the mark of an achiever. Today a youngster with good communicative skill can earn a fair amount of salary even in the beginning stage. In urban areas we are able to see the spoken English institutes mushrooming. Students who are doing professional courses are struggling to get a suitable job because of their inefficiency to speak English properly. The prime reason for this is that our students are not been provided with such an opportunity to develop their communicative skills in English. A youngster, after learning this language for around twelve years in school and for three or more years in collage seems to have more difficulty to speak in English.

Of the four skills (Listening, Speaking, Reading and Writing) of English language, Speaking is the most neglected skill in our context at all levels of our education system. Today world demands accurate and fluent English from the young graduates and so it is

necessary to concentrate more in developing the spoken skill of our student.

Curriculum and Evaluation system

The aim of our education has been reduced to passing the examination. It is the duty of the state Government to provide suitable curriculum to the children at elementary level. The aim and objectives of a language classroom is different from those of other subjects. Also, it is meaningless in finding fault in the curriculum always. The teacher can provide justice to his profession by performing his job. He can give the students oral practices whenever possible without considering the textbook. There are people who firmly declare "spoken English cannot be tested, so don't include it in the curriculum". Some offer a viable compromise", Teach speaking skills but test them through the written model. So we teachers, let us stop blaming the curriculum and the evaluation system. The teacher in his class can go across this.

Practical difficulties in developing speaking skill

There are some practical difficulties involved in the process of teaching, testing and assessing speaking. Some of them are:

- It is difficult to get the large class converse in English.
- Teacher is not well trained to do the job.
- It is believed that it is enough to teach and test reading and writing. These will take care of speaking.
- Evaluating speaking skill has some practical difficulties.
- Teaching and testing speaking involves a lot of time and infrastructure.
- Teaching learning process is examination-oriented.

Suggestions

There are unlimited ways and strategies to promote the development of oral language in the classroom.

The classroom should be a place where the use of spoken language is sensitively supported and where active listening is developed and valued. To develop the speaking skill, the students are to express to a variety of appropriate techniques are to be adopted by the teacher. Proper listening of a language will also help for successful speaking skill. We are in an ever-changing universe. As the wordings, structures and patterns are changing, the language teachers should be ready to change their teaching methods according to the changes. Methods followed for decades cannot be easily abandoned. But feeling the reality that change is indispensable in the fast changing expectation of the learners, we must accept the changing paradigms.

- Teachers have to be trained in such a manner that they should have good speaking ability.
- The curriculum should be made flexible
- Practical type of syllabus should be framed and put to use.
- Full freedom should be given to the teachers.
- Separate periods should be allotted for oral works. The class should be divided into

groups. Each student should find time for oral work.

- When oral practice to an individual is given, no interruption should be there. It would discourage the learner.
- Sometimes is a student gets stuck in the middle while speaking. The teacher should have a sympathetic and considerate attitude.
- Role play, interactive sessions, group discussions, narrating events, narrating stories, using audio visual aids and there are number of methods for developing oral skill and are all well known to the language teachers.

Thus we can't stick on to a particular method. The language teacher has to be innovative to adopt his own technique for the situation and the entire teaching technique adopted by the language teacher in developing the speaking skill of the learner is to be structured for the development of oral skill.

Conclusion

A thousand of meetings, the best text book, creative teaching materials, even native speakers visiting the classroom are not going to give students English speaking ability. Students by using English communicatively with their teacher and classmates will develop the ability to speak English. So let us be innovative and provide justice to our profession.

INNOVATIVE PRACTICES

D. Gnana Selin

St. Anne's teacher training Institute, Adaikalapuram

To innovate is to create, to tread a new Path in an Original mode. Today Education as a science is young, as a Profession it is just beginning to discover itself. In education, as in other fields of applied knowledge, we have to be very sensitive to many changes, that are taking place in the knowledge and in its understanding and application as also in our Social Philosophy. Our Practices in education are experimental and exploratory. As such they are subject to revision, re-evaluation and re-interpretation.

Elements of Change Process

According to Havelock (1973) the change process consists of four elements or components. They are: Resource System, Innovation, Communication and Adopter system.

Resource System

This refers to sources that generate innovation - Creativity is the main resource from which innovations originate. Creative thinking is divergent and it leads to generation of new ideas. According to Gilbert characteristics of divergent thinking are Sensitivity, Ideational Fluency, Flexibility in thinking and Originality.

Innovations

Innovation is an idea or a Practice, perceived as new by the adopter. It is created or transmitted by the resource system and through communication.

Characteristics of innovation

According to Havelock seven characteristics of innovation are identifiable. These are classified under the intrinsic and the extrinsic factors. They are leading.

Intrinsic Factors

1. Scientific Status of the Knowledge.

2. Value leading or acceptance as per social and cultural values.
3. Divisibility or availability in small part as related to the whole.
4. Complexity which should be less for the adoption of an innovation.
5. Communicability which is essential for the acceptance of an innovation.

Extrinsic Factors

6. Compatibility which refers to the degree of Congruence of an innovation with the adopter system.
7. Relative advantage as perceived by the adopter over the preceding practice.

Communication

Communication refers to conveying an information from one person, or party to another, through some media - Communication through different media is referred to here. Communication could be through the written media or oral presentations such as lectures, Seminars, Symposia, television, films, radio, recordings, mailing, demonstrations, programmed instructions and teaching machines.

Adopter System

The adopter system adopts innovation. The effectiveness of the adopter system depends on the factors such as individual characteristics, group characteristics, leadership, behaviour of the head and the organizational behaviour of the institution.

Barriers to Educational Innovations

Barriers to change may be at any element-such as Resource, Communication, nature of the innovation and the adopter system.

Audio visual aids

Using audio visual aids is an innovative practice in teaching learning process. Audio

Visual technology is a part of instructional technology. In fact audio visual technology makes use of varied educational media to improve the efficiency of teaching learning situations (Carlton W.H. Erickson). Therefore an audio visual aids is an instructional aid that can be heard as well as seen.

Significance of audio visual aids

1. They stimulate interest in learning.
2. They help to economise time and effort.
3. They are the best attention compellers
4. They reduce verbalism in teaching procedure.
5. They often provide rich aesthetic experiences for the students.
6. They break monotony and give variety to the class room instruction.

Practical values of Audio Visual Materials

1. They overcome the limitations of restricted personal experiencing of students.
2. They overcome the limitations of the class room such as:
 - a) When materials are too big.
 - b) When object, organisms and movements are too small to be observed or manipulated.
 - c) When the phenomena too slow to be seen and studied.
 - d) When too fast.
 - e) When things are too complex.
3. They provide direct interaction of students with the realities of social and physical environment.
4. They provide uniformity of percepts .
5. They give initial concepts which are correct, real and complete.
6. They awaken new desires and interests.
7. They provide motivation and stimulation.
8. They provide integrated experiences which vary from concrete to abstract.

When to use Audio Visual Materials

There is no specific time in the teaching learning situation However, they can be used for.

- a) Introduction of a Unit
- b) Development of a Unit
- c) Interpretation of a Unit
- d) Follow-up of a Unit
- e) Correlations of bits of information.
- f) Identification of self with a situation.
- g) Transfer to real life situations.
- h) Motivation and arousing of interest.
- i) Individual and group therapy.

Where to use the Audio Visual Materials

1. Where the subject matter is too far, distant to be actually seen as in geography.
2. Where the subject is far removed in time as in history.
3. Where the subject is too big to be had led or brought to the class room.
4. Where the subject is too small to be seen by the whole class at the time or by naked eye.
5. Where the subject is too fast to be seen.
6. Where the subject is too slow to be seen.
7. To get an idea of non-visual subjects.

Classification of Audiovisual subjects

1. Graphic Aids: Photographs and Pictures flashcards, Posters, diagrams, Charts, graphs, maps, Cartoons.
2. Display Boards: Black board, flannel board bulletin board, Peg boards, of exhibition panels.
3. Three Dimensional Aids: Models, objects, Specimens diagrams, Puppets.
4. Audio Aids: Radio, television, recording (Disc and Tape).
5. Projected Aids: Films, filmstrip, slides overhead transparencies.
6. Activity Aids: Field-trips, demonstration dramatics.

7. Cultural Media: Drama, Songs, Puppet Shows.

8. Miscellaneous: Pamphlets, Leaflets Exhibition.

When making use of these audio visual aids we can develop a creative classroom atmosphere.

In primary classes the subjects, children feel hard and dry is English Grammar, Tamil Grammar and Mathematics. The Primary Children should feel at home in the Class room. The methods and approach the teacher use, make this possible. In the Same way, children can feel at a garden, with flowers, fruits, birds and Butterflies.

When we teach Grammar both in English and Tamil, and Mathematics it is possible by simple diagrams and pictures that we made.

A flower with 3 petals can teach the parts and a sentence (subject, verb and predicate). Like that a plant with 6 fruits or flowers can teach the 6 types of noun in Tamil.

A Sunflower with 12 Petals can teach Vowels in Tamil and a flower with five butterflies can explain vowels in English.

In general all sorts of Classifications in Tamil or English Grammar and works in Maths can be taught easily in this way.

So in grammar classes. Children feel at garden with flower, fruits, birds and butterflies.

This sort of approach make the children to study without pain and they feel happy and they enjoy learning Grammar. The important thing is the teacher must be thorough in her subject and good at planning before entering the grammar classes.

Instead of learning without understanding and interest, we can make them learn by drawing the pictures with the 'so called' parts also.

Suggestion for the promotion of innovativeness in students

The Suggestions by Torrance (1962) for teacher behaviour designed to promote

creativity and innovativeness in students are worth Practising. These, valuable suggestions might be implemented in schools. They are as follows:

- Value creative thinking.
- Make children more sensitive to environmental stimuli.
- Encourage manipulation of objects and ideas.
- Teach how to test each idea systematically.
- Develop tolerance of new ideas.
- Beware of forcing a set pattern.
- Develop a creative class room atmosphere.
- Teach children to value their creative thinking.
- Teach skills for avoiding peer sanction.
- Give information about the creative process.
- Dispel the sense of awe of master pieces.
- Encourage self-initiated learning.
- Create 'thorns in the flesh' (i.e. awareness of problems).
- Create necessity for creative thinking.
- Provide for active and quiet periods.
- Make available resources for working out ideas.
- Encourage the habit of working out the full implications of ideas.
- Develop constructive criticism.
- Encourage the acquisition of knowledge in a variety of fields.

Conclusion

In developing countries like India, it is difficult to use all sorts of audio - visual aids and other scientific techniques in all the classrooms. The easy and best way is using simple pictures and models that we can easily make.

"A poor teacher speaks, an ordinary teacher explains, a good teacher demonstrates, a great teacher inspires".

ACTIVITY BASED LEARNING

A. Basheer Ahmed

Senior Lecturer, DIET, Ranipet, Vellore Dt

Integrated Learning Method

At present, in Primary Schools, Group Learning Method is integrated with individual learning. The school at which the learning takes place also finds importance in improving the achievement levels of the students. In order to fulfil this, the Government of Tamil Nadu has made necessary arrangements to facilitate the basic needs of the children and developed a proper learning climate at each and every Primary School.

Spade Work for Activity Based Learning

The Activity Based Learning (ABL) method is introduced on the trial basis in selected schools of each and every block of Tamil Nadu for the past three years. After the successful completion and unbeaten results of achievement among the children, now the Government of Tamil Nadu has introduced this system of learning in all the schools.

As the spade work, the Government has supplied the ABL cards to all the schools, so that each and every child can seek the benefit of the said ABL cards. All the teachers were provided with necessary training to use the ABL cards and the strategies to be adopted during teaching process.

Activity Based Learning - Principles

The (ABL) method of learning provides pace for individual learning along with peer learning and group learning depending upon the activities. Flexibility is the common and major criteria in this process of learning. This avoids the rigidity in the traditional learning. A common principle in the past that continues is learning skills which are relevant to their day-to-day life. Many dimensions flexibility of place / learning materials / facilitators are accessible in principle. This method is the need-based and learner-based method.

Activity Based Learning - Outputs

In this type of learning the children are able to share their ideas / concepts with the peer group and clear their doubts from their teachers. Thus this programme leads to complete learning. This type of learning brings out the children from miseries, gloominess, hopelessness and dejection. So this method leads to a Joyful, Easy, Complete and Concrete Learning.

This method leads one child to assist the other children. This provides way for the young children to develop unity among themselves which is one of the expected social goals of education.

The colourful, handy, helpful, usable, bright, knowledge based, intellectual nice-looking, eye-catching, smart activity cards expand the increased motivation among the children towards learning. These cards act as the source for Motivation, Learning, Games, Activities, Evaluation, Relearning, Practice and Exercise during the learning process.

The children help themselves and help the others who are far behind in learning. This method leads to collaborative learning among the children. The children extend their support to their teachers in handling the learning cards and in managing the classrooms without bafflement.

The teamwork among the children in arranging the cards and classroom things make them to understand their neighbours and cooperate in the activities thereon. This leads to integrity and the expected integrity in the adulthood in creating an integrated society in future.

Grouping during the learning process, facilitates social learning and stimulate the social brain among the children.

Leaving the children to make conversation among the children and also with the teachers lead them to develop their enquiry technique in gathering knowledge without any fuss. This kind of conversations and discussions show the way to understand logic in knowing and understanding things. This rational learning steer them to permanent learning.

There is a provision for Learning Oriented Field Trips which links the indoor activities regarding the learning concepts and learning styles with that of the things, activities, happenings, natural resources and so on. Linking indoor activities with that of the outdoor places - movement, engaging the motor cortex linked to the cerebral cortex, for oxygenation. This provides room for the covered learning to the exposed Open learning. As the children are exposed to open

learning the Corridors and public places containing learning objects provide very many things to know about the society and to live with/among the public. This kind of approach leads consistency in learning.

Conclusion

In ABC system all the resources are made available to the children. This availability of learning materials provide educational, physical and the variety of settings in close proximity to encourage rapid development of ideas generated in a learning episode. This is an argument for wet areas/science, computer-rich workspaces all integrated and not segregated. Apart from this the Language areas and the Mathematical concepts are also facilitated to the maximum extent.

DTERT, Chennai

INNOVATIVE PRACTICES OF USING LANGUAGE LAB TO TEACH ENGLISH IN ELEMENTARY EDUCATION

N. Shenbagavali

Lecturer in English, Bharathi TTI,
Coimbatore

Introduction

Language is a tool for oral communication. Our emphasis is on the deficiencies of younger children as compared with older ones, since we are interested in developments which take place in the early school years.

Objectives

- ✧ To teach language by using Modern Technology
- ✧ To develop the fluency of foreign language
- ✧ To use language lab in the elementary education to develop the pronunciation, stress, intonation and pause.

Teaching English

English in India is a modern foreign language differing more from vernacular familiar to the pupil. It is very important that our pupil should speak English in proper pronunciation, stress, intonation and pause.

Difficulties mainly are in their pronunciation. When a teacher makes mistakes the students also follow the same. In order to rectify the above. Many modern techniques are available. One such technique is the usage of language lab.

Language Lab

Though it is originated in USA, it rapidly gained ground in UK in the 1960's. It is especially used in the teaching of foreign language. It concentrates on listening and speaking whereas reading and writing can be developed later.

Using Language Lab in Elementary Section

In the Elementary Section English Alphabet can be taught through language lab with proper pronunciation.

Students can hear the sound with proper pronunciation and they can repeat. Next vowels and consonants can be introduced.

In English same letters have different pronunciation. For example, the letter 'a' has eight different sounds. Students can learn different sounds by the usage of language lab. Similarly words and sentences can be taught with proper stress, intonation and pause.

A language lab provides for a well designed and carefully produced pattern of drills and this relieves the teacher of endless repetition of patterns.

Equipment of Language Lab

It has three sections: hearing booth, console or advisor booth and control booth.

Advantage of Language Lab

- A student is motivated to learn the language to the Music in the Language Lab.
- He first listens to the words and sentences.
- Learns to differentiate the pronunciation of words.
- The Advisor guides him to reproduce the same sound.
- Student can rectify his error.
- He can repeat the lessons.
- Teacher can correct the mistake of a student without disturbing others.

Limitations

- ✧ It is limited to develop speaking skill of a language.
- ✧ Not more than 16 to 20 students can learn at time.
- ✧ The equipment is costly.

Conclusion

Using Language Lab in elementary education is very effective. As English is a foreign language. Language Lab affords opportunities for the students to hear the languages spoken by a native and to practice speaking in the

languages by themselves. In the traditional teaching very little time is provided for oral and auditory experiences and from this point of view the language lab is a popular technical innovation.

DTERT, Chennai

EFFECTIVENESS OF COOPERATIVE APPROACH IN LEARNING SCIENCE AT ELEMENTARY LEVEL

K. S. Mani

Senior Lecturer, DIET, Mannargudi

Cooperative Science learning is part of a more general Instructional approach. It is also known as collaborative Learning approach in teaching that makes maximum use of Cooperative activities involving pairs and small groups of learners in the class room. As Olsen and Kangam (1992) describe cooperative learning is a group learning activity. Organised so, that learning is dependent on the socially structured exchange of information between learners in groups and in which each learner is held accountable for his / her own learning and is motivated to increase the learning of others. The early Twentieth century V. S. Educator John Dewey is usually credited with promoting the idea of building Co-operation in learning in regular class rooms on a regular and systematic basis (Radgers, 1988).

Need and Significance of the Problem

At elementary level science occupies a pivotal place in the school curriculum. The basic science is to know and get systematized knowledge in any field. The investigator observed that majority of the children of class VIII showed poor performance in the unit of Biology. Hence the investigator has decided to make an attempt to teach the unit in Biology through Cooperative learning Approach.

Statement of the Problem

In the unit of Biology students are unable to understand and express their views independently in VIII standard text in science.

Objectives

1. To identify the problems of Std. VIII students in the unit of Biology in science.
2. To find out whether there is any significant difference between the pre-test and post-test in achievement mean scores

of the students in the cooperative learning approaches in learning Biology in science.

3. To assess the efficiency of Cooperative learning approach in science at standard VIII level.

Hypothesis of the research

There is no significant difference between the pre-test and post-test in achievement mean scores of the pupils of the Std.VIII at Needamangalam Block of Thiruvavur District in cooperative learning approach in improving the Biology unit in science.

Methodology of the Action Research

Single group experimental design was followed for the action research. Cooperative learning Approach was adopted to attain the concept.

Selection of Approach :

- Cooperative Learning Approach consists of
→ Group Learning → Pair Learning → → Individual Participation
- Initiating
- Participatory Approach and Facilitating

Sample

This Research was carried out in Panchayat Union Middle School, Vadakaravayal, Needamangalam Block. Thirty five students studied in standard VIII was participated in this research.

Tools selected for the action research

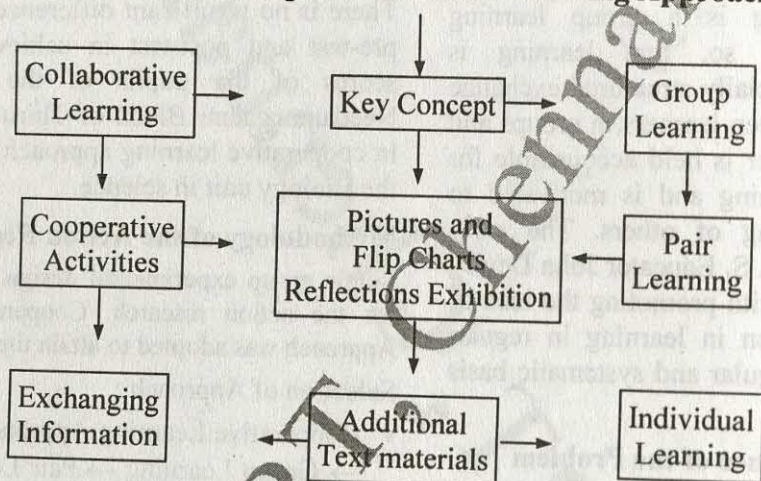
Researcher's self made question paper was used as a tool for the Research. The data were collected from the students by the achievement test to improve their concept of knowledge in the Biology unit through Cooperative Learning approach. The same question paper was considered for pre test and post test of the achievement test.

Operational Way

As generally practised, the discussion group consists of a leader and a small number of individuals who are indented upon the discussion of some unit of Biology in Std. VIII science. The leader sits with the group and as a part of it, he exercises more or less control over the discussion in accordance with the purpose of the meeting. The group itself is

limited in number, ranging from five to six. The spirit and manner of the meeting is informal. There are no sets of specters, but arranged order of key concepts and Questions were considered under general guidance of the leader. The discussion proceeds from point to point, as per the aspects of the subject. The subject is suggested by a facilitator.

Model for Cooperative Science Learning Approach



Data Analysis

The data were collected through achievement test of pre and post test. The answer sheets were collected, valued using the scoring key, the scores were tabulated and analysed.

Statistical Technique

't' test was used as a statistical technique in this research.

Data Analysis and Interpretation of Data

In the pre test the students of standard VIII scored 27% of marks. After giving activities based Cooperative learning approach, they scored 53% of marks. Hence the students had problems in the unit Biology in science at standard VIII.

Test	Mean	SD	N	't' value	Level of significance
Pre-test	29.48	27.8	35	10.99	P < 0.05 significance
Post-test	82.68	16.8	35		

The above table showing the achievement score SD and 't' value for pre- and post-test.

The achievement mean score in learning Biology in the pre test is 29.48 and the post test is 82.68. Hence the pupils of standard VIII score more marks in the post test than pre-test. From the above table, the calculated value 10.99 is greater than the tabulated value of 't' is 1.99. The calculated value is greater than tabulated value. Null hypothesis is rejected at 0.05 level. Hence there is significant difference between pre test and post test of the students in achievements mean scores in learning Biology in science at standard VIII.

Findings of the Action Research

- The students had problems in learning the Biology unit in Science of standard VIII in Needarnangalam Block, Thiruvavur Dt.
- There is significant difference between the pre-test and post test in achievement mean scores of the pupils in learning the unit of Biology in science at standard VIII.
- Cooperative learning approach is more effective than conventional approach in learning Biology unit in science at standard VIII.

Educational Implications

This strategy may be extended to other classes. Pair and group learning may be useful to diminish the problem of the students in Biological science.

Cooperative learning approach may be encouraged in other subjects especially in social science.

Conclusion

Cooperative learning synthesizes the theory principles and practices for designing and implementing successful group work. Complete concepts are more fully understood when cooperative learning than competitive or individualistic learning methods are used. The use of discussion groups, group work and pair work have often been advocated both in teaching science and other subjects. Cooperative science learning Approach (CSLA) can also be used in collaboration with other teaching methods and approaches.

CREATIVE TEACHING AND LEARNING

Dr. S. Santhana Krishnan

Principal, Vidhya Sagar Women's College of Education, Vedanarayanapuram,
Chengalpattu

Creative thinking is very essential attribute for any developing nation and developed nation. Guilford says it is 'fourth eye' of the human being. Any teacher can teach the subject creatively. Any subject can be taught by lecture method, lecture-cum-demonstration method, project method, assignment method, heuristics method etc. Besides, it can be taught by creatively which is constructive and specialized one also.

Creative is the prime phase of the human being. This is present from infant to senescent without exception. It is generally present among boys and girls, male and female, young and old, illiterate and literate, employed and unemployed, Indian and foreigner, poor and rich, rural and urban etc. Some may use it. Some may keep, intact, the power of creative thinking. But its presence is varying person to person, angle, direction, dimension, speed, intensity and velocity etc. The creative teaching and learning can be organized by following manner by the teacher and the learners respectively.

It is one of the important and significant aims of education to develop creativity among primary school children. Generally, this is the age in which creativity attains its peak. After that, due to restriction, condition, coercion, fear, tension and stress, it becomes slowly disappeared.

Organising Creative Teaching and Learning

- 'Problem solving' method is to be followed and practiced in the primary schools.
- Teachers have to take special efforts to bring out the power of creative thinking of the students community.
- The teacher should be able to bring out the 'divergent thinking' ability of the students.

- The students should be always be trained 'open minded' thinking practice.
- The students should be prepared by the teacher for 'environmental situation' which is the special issue of the time.
- The students should be made to identify the 'intelligence' and 'creative ability' separately.
- The teacher should accept new concept then and there and change accordingly.
- The students should not be coerced to accept the conservative policies etc.
- The teacher should adopt 'democratize practices' in the classroom teaching.
- The teachers should recognize, if not encourage, the power of creative thinking ability of the students.
- Syllabus should be the inducing instrument of creative thinking.
- New things and skills are to be changed into developmental aspects.
- Students should develop 'self-initiative learning' regularly.
- The teachers and the students should creative the skill of 'constructive criticism'.
- Teaching should be success rather than failure.
- The teacher should make 'creative environment' in the classroom.
- Students should be given opportunity to get 'environmental experience'.
- 'Freedom of speech and freedom of thinking' is to be freely given to the students.
- Students should be offered 'psychological safety'.
- The teacher should implement 'Brain storming' technique in the school.
- The teacher should help to develop 'imagination power' of the student.

- The students should be allowed to see dreams.
- The teachers should help them to dream and dream should go into action.
- 'Synectics' is to be developed in the classroom.
- Dramatization, story-telling technique is to be handled by the teachers in the class.
- The students should be allowed to ask questions related to matters other than subjects at the end.
- The teachers should be creative and innovative.
- There should be separate class for gifted students and slow learners.
- Spoon-speeding and dictation should be done away with at the primary level.
- The students should be grouped in small numbers and made them for group discussion, team learning etc.
- The teachers should practise the students to think independently and differently.
- The teachers should not be too rigid.
- The teachers should not be stereotype nature and monotonous.
- The teachers should not take the students into narrow circle.
- The teachers should counsel the extraordinary students periodically.
- The students should be allowed to ask their questions and clarify their doubts freely.
- The students should be trained to practise open-ended questions and answer sessions.
- The contribution of students should be seen in the students angle and not in teachers angle.
- Competition should be held for eloquence, essay, prose, poem, drawing, music, dance etc. and identify the winner and runner among the young learners.
- Getting more marks in examination is not main issue. Doing many things or finding out many things is the pivot of the time. The State and Central Government should cooperate with the system to be implemented.
- In elementary level, the lecture method may be slowly dropped by 50% and other new techniques to be gently practised.

Creative teaching and learning can be used, followed and practised in the above said manner in elementary schools. In the year 2020, our nation definitely becomes super-power in all fields and disciplines. This is no doubt, provided we adopt creative teaching and learning method sincerely in the school curriculum.

INNOVATIVE PRACTICE

G. Indra

Lecturer, Geography, DIET, Uthamasolapuram, Salem

Education is the process of socialization. The main function of education is produce socially fitted persons, who are convergent with the social traditions and cultural background. Traditionally the teachers are practised only for chalk and talk method, lecturing method and to read the text book etc. Generally education is the most important endeavour in our national transformation from a developing to a developed country. Innovative practices are aimed at exposing the student-teachers to equip themselves to face the vast changes that are taking place in the educational scenario. The innovative practices enhance our student-teachers' performance.

Definition

Innovation means "new thought" or "new idea". The abbreviation of

Innovation refers to

- Intuition
- Narration
- Opportune
- Vulpine
- Abiding
- Tactful
- Inspiration
- Omnipotent
- New thoughts

Innovation is one of the route of changes or else that is our target.

Approaches

- Psychological approaches
- Multi-sensory approaches

Psychological approaches

Innovative practices are based on Piget method. Enhanced learning "process" results into change in "behavior". Generally 14% knowledge is acquired through auditory sense, 84% knowledge is acquired through visual

sense only, remaining 1% knowledge is acquired through tactile sense only.

Multi-sensory approaches

Orientation in visual, tactile, olfactory and gustatory sense facilitates innovative practices of the student in the classroom process.

Innovative class room practice

New approaches that enhance the teaching learning process in the classroom are known as innovative classroom practice. It is registered in the neurons of the brain in long term memory.

Innovative practices

- MCS - Meta cognition strategy
- UNIMOW - Understand, Naming, Imagine, Making, Overtly restate and Writing.
- SQ3R
- VBL - Virtual based learning
- PBL - Problem / Project based learning
- FTL - Field trip learning
- CAA - Cues and acronyms
- CAI - Computer assisted learning
- TAD - Tutorial and dialogue
- EL - E-learning
- MOODLE - Modular object oriented dynamic learning environment and etc.

Meta Cognition

Meta cognition is defined as the innovative about cognition and regulation of cognition - (Red 1988). For instance: Coral look like a Clays of the flower. Hydrosphere is rotated with the earth. It is compared to yolk and other egg fluid.

UNIMOW

- Understand what is to remember?
- Name the symbols
- Imagine the association
- Understand

- Overtly restate
- Write them down

SQ3R

- Survey
- Questions
- Write
- Register
- Retaining

Virtual Based Learning

A particular area people explain their locations, physiographic, climate, soil, weather and climate, natural vegetation, transport, minerals, population etc. This method is known as virtual based learning.

For instance: The life of the hilly areas, plain areas, desert area and coastal areas are exemplified by the particular people to the students.

Problem / Project Based Learning

Problems are selected on the basis of subject content, to modify the multimedia presentation. This is known as project based learning.

For instance: Pollution is the content area of VII Std; it is also the common problem of the environment of all the countries.

- Salem - Sago's pollution
- Erode - Dyeing water stagnation
- Dindigul - Leather factory
- Agra - Iron and Steel industry

Field Trip Learning

Content based location is selected for field trip to the students. After they have finished the field trip, they present the group presentation report.

For instance: Art and architecture of Pallavas, Pandyas, Choloas and Moghals.

Cues and Acronyms Learning

"Cue" means hint. 'Acronyms' means the word set up by the initial letters of the factors or matters.

For instance: Factors that affect the climate

LADO

- Latitude
- Altitude
- Distance from the sea
- Ocean currents

Types of soils of India

BARS

- Black soil
- Alluvial soil
- Red soil
- Sandy soil

CAL

A communication revolution is taking place because of the introduction of electronic devices, especially the computers. This strategy is called computer assisted learning.

For instance: The great Chola Empower Rajaraja Chola's art and architecture are exemplified by the CAL.

E-learning

There are 6 important features of e- learning,

- Ease of use
- Interactivity
- Multiple Expertise
- Collaborative learning
- Authenticity
- Learner control

E-learning has many software systems designed to facilitate for the student.

- LMS - Learning Management System
- EMS - Course Management Systems
- LSS - Learning Support System
- VLE - Virtual Learning Environment

Advantages of Innovative Practices

- Student can learn at his own pace.
- Allows student to work individually and independently.
- Never forget to correct or praise, it has infinite patience.
- Gives immediate feed back.
- Never get tired, frustrated or angry.

- Student achievement superior to the traditional method.

Conclusion

In the third millennium, education system, the innovative practices can be used in education in different ways, i.e., to reinforce present educational system, to revolutionize the

present education system and to lay the foundations for the future systems of education. Students react effectively.

The innovative practice makes teaching learning process more effective in the present education system.

DTERT, Chennai

CREATIVE PSYCHOLOGICAL APPROACHES TO CLASSROOM INTERACTION

Dr. S. Meera

Lecturer (Education), SRM School of Teacher Education & Research, Chennai

Classroom interaction needs to be understood at elementary level as a psychological factor in order to have the right perspective of its role in the development of the learner in the classroom in general and in the learning of a language. Interaction is basically a psychological factor and needs to be viewed with reference to other factors in psychology that determine classroom learning. Interaction is a process involving individuals, situations and other factors coordinated together to produce an event with its purpose. Interaction is a psychological factor because human individuals are involved with the behaviour. It becomes sociological where interaction is defined with reference to the behaviour of the individual in a social context.

Interaction and Motivation

Motivation is one of the fundamental psychological factors at work behind learning. Interaction and motivation closely interact in the context of learning in the classroom. The student finds himself in a characteristic situation marked by problems, needs for adjustment etc. Even the highly motivated and independent student looks upon the peer group for support at times of difficulty. Interaction both at the peer level and at the student-level comes as a basic help in the student's adjustment to the learning. The teacher by creating interactional atmosphere can enhance the motivation of the learner.

Interaction and Achievement

The student who is capable of taking benefit of the interactional situations that are created or that naturally arise in the class have the advantage of an increased level of achievement. Peer interaction helps mutual clarification of ideas and aspects and develops in them the art of readily exchanging and discussing the ideas and aspects of content matter with other students in the class. If

student-teacher interaction develops at early stage, learning will develop the habit of participating in discussions and question-answer sessions at elementary level. A class that is activity-centered and interaction-oriented has great scope for the learning. Students performance in the class is itself an indicator of the level of achievement.

Interaction and Memory

Memory as a psychological factor of learning depends on the learning stimuli being overt, concrete and perceptible. The more concrete and organized the material is the better the impressions in the minds of the learner will be whatever his age may be. Learning through abstractions which do not involve concrete and dependable images for the learner to hang on leaves the learner's memory in doldrums. When learning involves concreteness i.e. concrete images, especially visual images or auditory images of varying kind, the material hangs on his memory. Classroom interaction provides learning with concreteness of all dimensions and helps the student to associate categories with concrete visual and auditory images. Classroom interaction is the very foundation of the learner's memory which, in turn, is central to learning.

Interaction and Imagination

Classroom interaction provides a concrete basis for the students' imagination. Classroom interaction becomes the principal feeding ground for the development of the learner's imagination. Classroom interaction can introduce into the classroom a variety of sense perceptions for the learner to hang on. Interaction can be based on the use of pictures, actions or illustrations and demonstrations of any kind. The teacher with effective classroom interaction will succeed in putting across his material most effectively.

Interaction and Creativity

Classroom interaction is a fundamental factor in developing and exploiting students' creative ability. Creativity is viewed as the individual's contribution to organize his environment in such a way as to produce new and meaningful experiences. It is primarily an endowment, a gift of nature to man to live above his animal nature. Creativity is based on classroom interaction. When classroom interaction is adequate the student finds himself in a challenging situation in which greater student involvement and participation occurs. Such an involvement by the class at large adds to the enthusiasm of the bright, average and slow learner group to such a considerable degree that each of the groups will be compelled to exert themselves to pay attention, involve themselves, give answers and take part in activities. This is the environment that creativity requires for its development.

Interaction and Skills

The development of any skill forming part of classroom teaching has its basis on classroom interaction. Skills and habit formation are the two sides of the same coin. Classroom interaction and language skills are interrelated. Language skills are mainly listening, speaking, reading and writing, appreciation and discourse development. In the development of many skills the presence of other individual to speak, to listen to and to participate becomes necessary. Classroom interaction provides the background and the atmosphere for the development of the listening-speaking skills of a language because the method makes no provision for active classroom interaction to which the language is used.

Interaction and Communication

Communication is most fundamental as a psychological factor in the development of personality. The learner in the classroom is involved in the situation in order to achieve maximum interaction and thereby achieve communication with other members of the

community. The communication with the teacher and the peer group is the feeding ground for acquisition of information, skills and change in behaviour. The whole process is psychological because therein individuals interact, new forms of behaviour pattern are realized and the atmosphere contributes significantly to the development of the learner's personality. Learning is communication. A communicative act is defined with reference to the speaker, listener and the message that is communicated. The success of an act depends on the disposition of the speaker and the listener and the unity of the message that is communicated. The teacher in the classroom can have control over these components of communication.

Interaction and Behaviour Change

The learner in the classroom is placed in that situation to develop his quantum of information about the world around, and to bring about desirable change in his behaviour. Classroom interaction forms the background against which such behavioural changes take place. Interaction is a process by which individuals communicate to each other one way or other which involves some form of exchange. This communication involves the mental faculties of the individual, his aptitudes and attitudes in varying degrees.

Classroom interaction enhances the student's exposure to the world outside. The class is the centre of the individual students life experiences, and the world view that he develops depends thus on the exposure that he has on other individuals in the class, at home and out in the community. The psychological dimensions of classroom interaction thus functions as the chief perspective from which we can view the development of the student in general. Interaction at its core is personal communication in which behaviour in general is shaped. Knowledge of these factors is helped the teacher function effectively in the classroom.

DEVELOPING ENGLISH SPEAKING SKILL AMONG THE ELEMENTARY SCHOOL CHILDREN THROUGH PEER GROUP INTERACTION STRATEGY

C. Karuppaiyan

DIET, Kilpennathur, Thiruvannamalai District

The performance of students in English at all levels of Education is not encouraging. Teachers in many schools wasted nine golden years in teaching English Language without developing English Speaking Skill among their students. Many schools teachers used lecture method for teaching subjects. Teacher centered method is followed in teaching language skills in many schools despite child centered method. The students became as passive listeners. There is no provision for Remedial and Feedback teaching to the slow learners to cope up with normal students. Many teachers do not know the art of involving all the students in teaching learning process. The teachers in many schools do not fully utilize the joyful learning strategy for teaching learning process of English Subject. Text Book oriented teaching in many any schools. There is no opportunity for students to develop English Speaking skill among them. There are few words in the English text-book. The teachers should introduce more and more English words to the students to improve their language skill. Keeping these factors in mind the investigator has developed "A Peer Group Interaction Strategy" in developing English Speaking Skill among the Elementary school children of class VI.

Objectives

1. To introduce Peer Group Interaction Strategy for developing English Speaking Skill among the elementary school children through the Elementary school teachers and their reactions
2. To measure the effectiveness of Peer Group Interaction Strategy for developing

English Speaking Skill among the Elementary School Children

3. To enhance achievement level of students in English
4. To motivate the Elementary School Children for developing English Speaking Skill.
5. To reduce the fear of speaking in English.
6. To make the Elementary School Teachers aware of the Child Centre Approach in developing English speaking among the students.
7. To motivate the teachers to utilize the Child Centered Peer Group Interaction Strategy fully for developing English speaking skill among the students
8. To reduce wastage and stagnation in class room teaching of English

Methodology

The various steps followed in the methodology of the study were the development of Peer Group Interaction Strategy for developing English Speaking Skill among the Elementary school children, identification of slow learners, design of sample, construction of research tool, administering research tools, collection of data and employing appropriate statistical techniques to arrive at scientific conclusion.

Development of Strategy

The following steps were involved in the development of Peer Group Interaction Strategy for developing English Speaking Skill among the Elementary School Children.

Step-1:

The teacher provided a situation of a Vegetable Vendor selling vegetables to the customers. Six students were performing this in situational approach of teaching English Speaking Skill to the students. The teacher

introduced the names of many vegetables to the students.

Step-2:

The teacher introduced the following conversation between the vendor and the customers.

Vendor : What do you want?

Customer : I want carrot. What is its price?

Vendor : I can give Twenty rupees per Kilo Gram.

Customer : Can you give it for sixteen rupees per Kilo Gram?

Vendor : No. I can't give for sixteen rupees. I can give it for nineteen rupees per kilo gram.

Customer : Okay. Give me half a Kilo Gram.

Vendor : Do you want any other Vegetables?

Customer : What is the price of potatoes?

Vendor : I can give it for twelve rupees per Kilo Gram.

Customer : Can you give it for ten rupees?

Vendor : Its fixed price is twelve rupees per kilo Gram.

Customer : Give me one kilo Gram.

Vendor : Do you want any more?

Customer : No. Thank you very much.

Step-3:

Teacher asked the customers one by one to converse with the vegetable vendor. Teacher asked the other students to observe the conversation between the vendor and the customers.

Step-4:

Then the teacher divided the students into groups of six members in each group. The teacher then nominated vegetable Vendors for each group. Teacher asked the students to perform the role of vegetable vendor and customers.

Step-5:

Then the teacher provided various situations such as Fruit Vendor, Fancy Store, Railway

Station, Post office, Bank, Fair, Stationary Stores, School Admission Interview, conversation between friends, etc. and gave practice to the students to speak in English.

Sample

For the purpose of this experimental research, 68 Elementary School children of classes VI in Upper Primary Schools at Kadambai and Kolathoor, Kilpennathur Block, Thiruvannamalai district were selected as sample of the study.

Procedure

1. The teacher identified the slow learners from the score obtained by them in their pre-test. The teacher divided them into two matched groups.
2. The teacher taught the control group English Speaking Skill through the traditional lecture method while the experimental group was taught English through the application Peer Group Inter Action Strategy for developing English Speaking Skill among the students.
3. The Peer Group Interaction Strategy for developing English Speaking Skill among the students of class VI was introduced and explained to the teachers in the selected Upper Primary Schools in Thiruvannamalai District.
4. This strategy was applied on the students through the class teachers.
5. The post-test was conducted to both control and experimental group at the end of the experimental period of one month

Findings

Two Panchayat Union Middle Schools were selected as sample for this study in Kilpennathur Block. 36 sixth standard elementary school children of Panchayat Union Primary School in Kolathur were selected as control group while 32 sixth standard Children of Panchayat Union Middle School in Kadambai, were selected as a sample for experimental group.

Table 1

Table-1 shows the pre-test and post-test score analysis of the VI Std. Children of Panchayat Union Middle School in Kolathur (Control Group).

Name of the test	N	Mean	S.D.	t-Value
Pre-test	36	2.54	1.4	0.3221*
Post-test	36	2.68	2.2	

Note: * Denote the significance at 0.01 level. Improvement is 5.5%.

Table 2

Table-2 shows the pre-test and post-test score analysis of the VI Std. Children of Panchayat Union Middle School Kadambai, Kilpennathur Block (Experimental Group)

Name of the test	N	Mean	S.D.	t-Value
Pre-test	32	2.60	1.8	4.6512*
Post-test	32	5.20	2.6	

Note: * Denote the significance at 0.01 level. Improvement is 100%.

The rate of progress made by the experimental group Children was higher than that of the control group Children. In terms of percentage, the rate of progress made by the experimental group slow learners is 100% while the rate of progress made by the control group was only 5.5%. The variations in the rate of progress made by both the groups was the resultant product of the implication of this Peer Group Interaction Strategy in developing English speaking skill among the elementary school children of class VI.

Educational Implications

1. The role of Peer Group Interaction Strategy in developing English Speaking skill among the elementary school children of class VI is more effective than the traditional lecture method in developing English Speaking skill.
2. All the children can be involved in this Peer Group Interaction Strategy.
3. This strategy can help the Middle school teachers to enhance the achievement level of slow learners in English.
4. This strategy makes children fearless and joyful.
5. This strategy can save the time and energy of the primary school teachers.
6. This Learner Centered Approach can minimize the wastage and stagnation in classroom teaching of English.
7. This strategy can help the teachers in Non-Formal Education Centres, Adult Education Centres, Education Guarantee Scheme Centres, Alternative and Innovative Education Centres and in Special Schools to develop English Speaking Skill among their students.
8. Teachers can also utilize this Peer Group Interaction strategy in multi-grade teaching.
9. This strategy can inspire slow learners to cope up with normal students to a considerable extent.
10. As this strategy incurs no cost, each and every school can utilize this strategy for providing remedial and feedback

- teachings to the slow learners to enhance their achievement level in English.
11. This strategy can be applicable in teaching spoken English to all standards to enhance the achievement level of Children in English.
 12. This strategy can minimize the dropout rate and maximize the retention rate.
 13. This strategy can develop co-operative attitude among the students in the classroom.

DTERT, Chennai

EFFECTIVENESS OF EXPERIMENTAL AND SKILL BASED EVALUATION IN SELECTIVE EXPERIMENTS IN TEACHING SCIENCE OF CLASS-VII

A. P. Janagiraman* and P. Mani**

*Headmaster, P.U.M. School, Paratharami, Vellore Dt.

**Lecturer, DIET, Ranipet

Pupils evaluation in primary and upper primary schools has been a matter, here for debate for the last five decades. Critically examining the purpose of pupils' evaluation in schools could be realized in two folds:

1. To get feed-back from the students regarding the appropriateness of the instructions, instructional process thereby incorporating relevant educational methods for enhancing the teaching learning process.
2. The evaluation is to gauge the students for promoting them to higher standards in the academic ladder. There is need to maintain balance between these frames of reference.

Present System of Evaluation

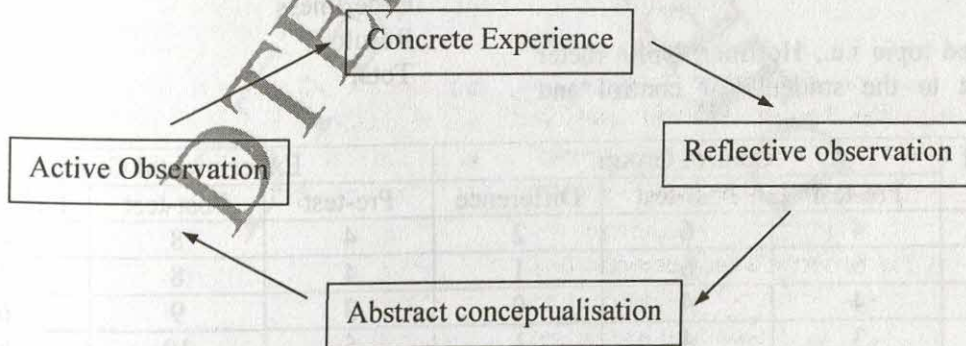
1. Memory based evaluation.
2. Writing skill development.

3. No individual activity to assess progress of learners while learning.
4. No sharing of experience with their groups.
5. In most cases practical skill marks are not recorded.
6. Test or Examination was virtually a test of cognitive area not metacognitive area.

What is lab skill

The ability to organize a situation through stimulation techniques for the student to acquire, observe, record, test, interpret, infer and apply skill.

Kolb's (1984) model of experimental learning (or learning by doing) takes the form of cycle and suggests that a series of activities needs to be set in place for deep learning to occur. The model has four stages.



The National Curriculum Frame work brought out by the NCERT in 2005 has recommended that the typology of the questions in the examinations need to be changed. The present question and answer used to test the students achievement in different subject areas are largely memory based. The meta-cognitive skills like reasoning, creative thinking, application of knowledge, interferences etc.

are neglected. The researcher made an attempt to evaluate the Hoffman Volta meter preparation through Traditional method and experimental skill based method.

Need for the Study

The traditional questionnaire method of evaluation is monotonous to students and teachers. The new technique is used to find out

the learning difficulties and develop the meta-cognition based evaluation.

Objectives

1. To study the extent of the usefulness of the experiential and skill based evaluation in teaching chemistry experiments of Class-VII.
2. To facilitate the students for active learning in doing the experiments.
3. To reduce fear at the time of examination.
4. To help the student get direct experience while handling lab equipments.
5. To make the students attain mastery over the subjects.

Sample Design

For the purpose of the study 10 show learners were selected from PUM School, Paratharami through random sampling method.

Methodology

Tool

1. Guideline cards
2. Traditional question paper
3. Low-cost model of Haffman Volta Meter

Topic: Hoffman Volta Meter, Std.: VII

Step-1:

The selected topic i.e., Hoffman Volta meter was taught to the students of control and

experimental groups for the period of one month.

Step-2:

The students of control group were evaluated through traditional method.

Step-3:

The students of experimental group were evaluated through experimental and skill based evaluation.

Step-4:

Pre-test and post-test scores of the control and experimental groups were tabulated.

Step-5:

The statistical technique such as mean score were applied to arrive at the scientific conclusion.

Data Collection

Marks Allotment

1. Traditional Type answer	.. 10
2. Experimental and skill based evaluation:	
Observation	.. 1
Recording	.. 1
Testing	.. 2
Interpreting	.. 1
Applying Skill	.. 2
Orderliness	.. 1
Results	.. 2
Total	.. 10

Sl. No. of student	Control Group			Experimental Group		
	Pre-test	Post-test	Difference	Pre-test	Post-test	Difference
1	4	6	2	4	8	4
2	5	6	1	4	8	4
3	4	4	0	3	9	6
4	3	4	1	5	10	5
5	5	6	1	6	10	4

Pre-test & Post-test analysis of control and experimental group

Name of the group	Number	Mean	
		Pre-test	Post-test
Control group	5	4.2	5.2
Experimental group	5	4.4	9.0

This data indicates the experimental evaluation method is more effective than traditional method of evaluation.

Educational Implications

1. The experiential and skill based evaluation is more effective and easy for evaluating students in teaching science experiments.
2. This strategy may be applicable for other subjects also.
3. This strategy is used to minimize the drop out rate and maximize the retention rate.
4. It is highly activity based evaluation and this strategy motivates the children and teacher.

5. This method is very simple.
6. This method increases the long term memory.
7. This method evaluates the cognitive and metacognitive area.

This method of evaluation fulfils the need of NCF-2005. This experimental and skill based evaluation assesses the pupils cognitive and metacognitive area. The investigator also applied this method to the other science subjects, i.e., Physics, Chemistry and Biology and got fruitful results. This method of activity based evaluation is recommended to Activity learning method which is to be introduced by SSA.

DTERT, Chennai

IMPACT OF STORY TELLING ON DEVELOPING LEARNERS' LISTENING AND SPEAKING SKILL

Prabhat K. Mishra

DRG Member, Sarva Sikshya Abhiyan, Ganjam
Po- Beguniapada, Dist-Ganjam (Orissa) - 761031

Background

Story is a powerful technique to enhance the thinking power of the learners. Stories have magical and magnetic attraction for children. Age-old traditional stories are still afresh in our minds. We recall the childhood days when a grey-haired grandma wearing a smiling face flash before us. It is because she used to tell us fascinating stories which gave scope for us to swim in an ocean of joy expanding our imagination. Before starting a topic, if we tell a story, it will motivate the learners towards the topic. But it is a fact that very few teachers take recourse to storytelling to present a topic. In teaching language and social studies the teacher must adopt story telling method. The benefits of storytelling can be well imagined by a teacher. Story telling promotes good listening and it gives training for prediction, extend the world of imagination, give meaning to words. A conscious teacher ought to master the art of storytelling. In this context the words of Krishna Kumar, the noted educationist, are noteworthy: "I like to imagine the day when anyone, who wants to teach young children, will be required to master at least thirty traditional stories. By *master* I mean to know the stories by heart, so that one can tell them in a relaxed and confident manner". But very few teachers are found to have been acquainted with this quality, as a result of which they fail to motivate the learners. And the listening skill is not promoted among the children. As a teacher and DRG member the researcher has experienced in course of his teaching that the learners are not properly motivated which tends to poor listening comprehension during schooling at primary stage. Considering the above facts the researcher conducted a study with the following objectives.

Objectives

1. To develop the listening and speaking skill of the learners through storytelling.
2. To study the impact of storytelling techniques on the performance of the learners in relation to listening comprehension and the speaking skill.

Methodology

Sample: 25 students of class III of Government. Project UP School were selected purposively to conduct the experiment.

Design: It was a single group with Pre-test, Intervention and Post-test design.

Statistical technique: Calculation of percentage and mean was done to find out the result.

Intervention Strategies

Before storytelling, the following techniques were adopted:

1. Giving prior information about the story bag..
2. Talking to children in a lonely manner.
3. Asking the learners to sit in groups.
4. The storyteller's (The researchers) preparedness along with materials like puppets and pictures and caption cards with sketches of the story.

About Story Telling Week

1. The students of class III were informed (about) that a story telling week was going to be observed for their class.
2. There was a competition among the students to tell the stories.
3. The competition was based on two criteria. One is to feel free to tell the story according to the story land and with

gesture, posture, voice modulation even with miming when required.

And the other one is role-play in which a group or pair presentation was allowed. In the first round, those pupils, who were story telling group will be the audience for role-play group and vice versa. In this all the students took part in the "Story observation week." The researcher followed the following technique at the time of telling a story, which was followed by the selected teacher of the school to adopt during the storytelling week.

Story Telling Process

Preparation to tell the story → Telling the story with action, posture and gesture changing the tone → Using pictures at the time of telling the story → Asking Wh- type of question → Continuing the story → Asking prediction questions → Checking prediction → Asking comprehension questions → Telling the messages.

Sources of Collection of Stories

Panchatantra, Katha Sarit Sagar, Mahabharat, Ramayan, Jataka galpa, Historical stories, Folk-tales of the locality. Some selected stories told during the observation of story telling week were: The lion and the rabbit, The

monkeys and the birds, The kind hearted boy, The witty Jackal, The wise minister, The crocodile and the crab, and The monkeys and the cap seller.

After a week's intervention the students were instructed to come prepared to tell the stories. As it was a stage of evaluation the following conditions were laid down for the students.

1. The students will select any story at the first touch of the story card covered with a piece of paper.
2. They were allowed 10 minutes to tell a story. When 8 minutes passed there was a warning by ringing a bell.
3. The jury were instructed to follow the scheme of evaluation based on modulation of voice, gesture, posture, asking prediction questions etc.
4. Bonus marks would be given who act out the story with reflection of emotion like crying, laughing and miming.

15 students took part in the test. At the Pre-test stage the performance of these 15 students in telling stories was recorded. After the post test was over, there was comparison between the pre test and post test performance.

Table-1
Performance in telling the story and acting it out (N=25)

Test	Telling the story with proper modulation of voice		Acting out with the gesture & posture		Remark
	N	%	N	%	
Pre-Test	10	40%	12	48%	Average performance
Post-Test	18	72%	22	88%	Excellent

It is revealed from the above table that satisfactory progress was marked as a result by the intervention. At the Pre-test stage 40% of the learners were able to tell the story and 48% of the learners were able to act out the story.

As an effect of the intervention 72% of the learners were able to tell the story well and 88% of the learners were able to act out the story with proper gesture and posture.

Table-2
Performance in listening skill and answering Wh-type questions

Test	Response the Wh-type questions				Remark
	Could do		Couldn't do		
	N	%	N	%	
Pre-Test	8	32	17	68	Average performance
Post-Test	18	72	7	28	Excellent

At the pre-test only 32% of the students could respond to Wh-type questions but it was found that all the Post-test stage 72% of students could respond Wh-type questions; which indicates that there has been substantial improvement in the listening skill and answering Wh-type questions.

Findings

1. The story telling week explored the innate potentialities of the learners in acting out any story which was allotted to present during intervention.
2. They could deliver the dialogues according to the events and characters of the story.
3. The shyness and timidity of the learners were eliminated to great extent.
4. Modulation of voice with pause, intonation and stress at the time of telling the story was marked with desirable improvement.
5. The power of comprehension was also increased due to sound and systematic presentation of the stories.

THE IMPACT OF STRUCTURED LEARNING FRAMES (SLF) OF BIOLOGICAL CONCEPTS ON LEARNING ACHIEVEMENT OF STUDENTS AT CLASS VIII LEVEL

V. Sugumar

Senior Lecturer, DIET, Keelapaluvur, Perambalur District

The present study entitled 'The impact of structured Learning Frames (SLF) of biological concepts on learning achievement of students at class VIII level' aims at finding out the effectiveness of teaching the Biology concepts through structured learning frames (SLF). Using SLF in teaching helps the students to understand the biology concepts easily.

Need of the study

The investigator during his visits to middle schools in his lab area, observed that majority of students of class VIII showed poor performance in basic concepts in biology in the area of 'Basic classification of plants', Thallophytes, Bryophytes, Pteridophytes, Gymnosperms and Angiosperms. The investigator came to know from the class teacher that many students find it difficult to learn concepts related to characteristics, internal structure and reproduction of plants given in the textbook. Providing the teachers with suitable teaching design, in which structured learning frames (SLF) of biological concepts are given to teach the basic concepts effectively, is considered important by the investigator. The investigator is sure that teaching the biology concepts through SLF would make the students understand the concepts easily and clearly.

Definition of key terms

"Structured learning frame" (SLF). It is a learning frame of a concept whose exposition contains all the essential information put together for easy understanding and sequential learning. The frames are self instructional. As well, they may require teacher's intervention also at the places of need. At the end of each frame / some frames, there is provision for evaluation.

Causes of the problem

- Lack of appropriate learning structure for biological concepts in the text book to help the students understand the concepts easily and clearly.
- Appropriate teaching strategy / devices of teaching which facilitates clear understanding of biology concepts required for the teacher.

Objectives

- To provide the teacher with suitable teaching design, in which "Structured learning frames (SLF - a teaching device) for biological concepts are given with suggestions, to teach the concepts effectively.
- To help the students understand the biological concepts easily and clearly using SLF in teaching.
- To study the effectiveness of teaching the biological concepts using SLF as a teaching device.

Design of the study

- Pre- Post-experimental method → single group treatment.
- Tool → Achievement test
- Sample → 30 students of class VIII of P.U.M. School, Palayapadi.
- Data analysis → Difference in average percentage of achievement Scores between pre test and post test

Selection of Biological concepts

- Basis characteristics of plants and animals
- Basic classification of plants
- Auto tropic and heterotropic organisms.
- Thallophytes
- Bryophytes
- Pteridophytes

- Gymnosperms
- Angiosperms

Steps followed in the Construction of SLF

- i. Selection of sub Concepts for the Construction of S L F.
- ii. Arrangement of sub Concepts sequentially
- iii. Construction of S L F. In S L F each Concept is explained clearly with all essential information and diagrams put together. At the end of each frame/ some frames, there is provision for evaluation.

Findings

- In the pre-test the average percentage of marks scored by students is 27.7.

- In the post-test the average percentage of marks scored by students is 66.6.
- The difference in the average percentage of marks scored between the pre-test and post-test is 38.9

Conclusion

It is concluded from the above findings that there is a substantial improvement in the average percentage of scores between the pre-test and post-test.

So the teaching of biology concepts through SLFs has improved the average percentage of achievement scores of the students.

PEER TUTORING - A STRATEGY FOR ENHANCING LEARNING ACHIEVEMENT IN MATHS AT ELEMENTARY LEVEL

Dr. S. Herbert Baskaran* and S. Senthivel Murugan**

*Reader, *College of Education, Alagappa University, Karaikudi*

**Teacher-cum-Scholar (AU), *Devangar Hr. Sec. School, Neeravi, Rammad District*

"Truly, one never really knows a subject until one tries to teach it".

Tutoring means, helping and supporting by the people, who are not professional teachers, in the learning of others in an interactive, purposeful and systematic way. In tutoring the teaching is called a tutor, while the student is called a tutee. Tutors can be members of the family, class-mates, and various kinds of volunteers. Children as young as 5 years old have learned to tutor effectively (Topping, 2000). Tutoring includes counselling or problem - solving sessions to help learners constructively address their conflicts with teachers or fellow students.

What is peer Tutoring?

Husen and Postlethwaite (1994) describes that peer tutoring is an instructional arrangement in which students teach their peers. Peer tutoring occurs when a tutor is of the same age, grade, or academic status as his/her tutee. The peer tutor will be an expert having greater information or competence as compared to the peer tutee. The peer tutee is a student having difficulties in learning situation and unable to gain an average grade level competence in the regular classroom activities.

In conventional classrooms there is a clear dominance of the teacher in all classroom activities. Here, education is teacher-centered and teacher decides the learning experiences for the pupils. Students are passive listeners and are not able to express their opinions. This will make the learning situation a burden to the pupils. In peer tutoring, students are placed in the position of teachers, it will definitely change the classroom atmosphere and makes the learning as a joyful one.

Significance of Elementary Education

Education and life are inseparable and continuous. *Education begins with the birth and continues as long as life lasts from the cradle to the grave.* Elementary education constitutes a very important part of the entire structure of education. A sound elementary education forms a sound foundation for secondary education and higher education. The education which he / she receives at elementary level, provides the foundations of his physical, mental, emotional, intellectual and social development. Since peer tutoring programs are a possible mechanism for improving academic achievement and psychological needs, we pay special attention to this study.

Need for Peer Tutoring

The purpose of teaching is to help the pupils learn. Each student learns, however, from his own efforts and experiences. The teachers' major concerns are student retention, covering of all the course material, student concentration and student attendance. The teachers do not have enough time to talk with individual learners about their learning strategies or explore deep understanding. This is where tutoring can be especially helpful.

It is quite normal on the part of the learner at the elementary level to commit errors in the process of learning. These errors are positive learning opportunity if recognized as errors. But if these errors are not recognized, they compound faulty learning. Tutors have more time than teachers to observe carefully for errors and encourage self-correction by the learners.

In peer tutoring tutors and tutees speak a more similar language than do teachers and students (Hedin, 1987). Being closer in knowledge and

status, the tutee in a peer relation feels freer to express opinions and ask questions.

If students fall behind in fast paced mathematics class, they may never catch up unless their particular problems are identified and remedied. This individualized assessment and follow-up process is the virtue of peer tutoring. Peer tutoring gears learning to student needs.

Peer Tutoring in Maths

“Mathematics is the language in which God has written the universe” - Galileo.

Maths can be a particularly frustrating and intimidating subject, and our student may not like it because he / she thinks he / she is “just not good at maths”. There are many different ways of learning and teaching maths, and any student can succeed in maths when he / she finds the ones that work for him / her. As a tutor, one can encourage students, build on their strengths, help them gain confidence in their abilities, and set an example of liking maths. The following points are to be kept in mind while tutoring maths:

- i) Find out where the student's understanding is faulty.
- ii) Build on what the students already understands.

Benefits of Peer Tutoring

- i) Increases mastery of academic skills (Topping, 1998)
- ii) Improves self-esteem and self-confidence (Rekrut, 1994)
- iii) Improves students' attitudes toward school: reduces dropout rates (Kalkowski, 1995)
- iv) Breaks down social barriers and creates new friendship (Cotton, 1989)
- v) Provides emotional support and positive role models (Martino, 1993).

Factors of a Successful Peer Tutoring Programme

- Qualities of the tutor: high academic achievement, willingness, patience, dedication, assertiveness, and the ability to lead and instruct (Gaustad, 1992).

- Tutors must be given an overview of programme structure, procedures, and goals (Topping, 1988).
- Tutors must be familiarized with the curriculum
- Tutors be given background information about their tutees (Topping, 1988).
- Instructional techniques be modelled to enable the tutors to emulate, emphasizing interpersonal, management, and content skills (Retreat, 1994)
- Tutors be made sure to be able to recognize areas where their tutees need extra help (Topping, 1988).
- Tutors be provided with ongoing monitoring and supervision throughout the course of their tutoring experience (Morris, 1990).
- Tutors be given encouragement and praise. They need to know that they are doing a good job.

Review of prior Research Findings

Research evidence shows that peer tutoring can be very effective – and a very cost-effective way of raising achievement (Bloom, 1984, Kulik and Kulik 1982, Topping and Ehly, 1998). Britz (1989) reviewed studies of tutoring in mathematics published from 1980-89. Findings indicate the effectiveness of peer tutoring in promoting significant gains in mathematics performance for both the tutor and the tutee. This strategy is found to be effective for promoting mathematics achievement at the eighth grade level (White, 2000). Peer tutoring increases such positive psychological outcomes as a sense of belongingness, self-esteem, self-concept, and internal attributions for academic success (Paolitto, 1976).

Cohen's (1982) meta-analysis indicates that longer programme (19-36 weeks) result in less academic improvement than shorter programme (less than 4 weeks). Ehly and Bratton (1981) found that same-gender pairs reported liking each other more than mixed-gender pairs.

Summing-up

One of the better aspects of human nature is our capacity and willingness to help each other. Peer tutoring takes this and builds upon it, making it not only an instrument for building positive interpersonal relationships, but also an extremely flexible, cost-effective learning tool by which children on both sides of the equation (tutors and tutees) can flourish.

Peer tutoring helps to individualized instruction at no extra cost. Finance is of great importance to students who belong to poor families. Using peer tutoring as a method of instruction, can improve the learning out comes of underachievers. Two slogans of advocates of peer tutoring are:

“Learning by helping” and “Learning by teaching”

DTERT, Chennai

Ques	Ans
1. The following are the functions of the management:	1. Planning 2. Organizing 3. Staffing 4. Directing 5. Controlling
2. Define management.	Management is the art of getting things done through other people.
3. What are the functions of management?	1. Planning 2. Organizing 3. Staffing 4. Directing 5. Controlling
4. What is the importance of management?	1. It helps in the achievement of the organization's objectives. 2. It helps in the efficient use of resources. 3. It helps in the coordination of activities. 4. It helps in the development of the organization.
5. What are the characteristics of management?	1. It is a process. 2. It is a social process. 3. It is a continuous process. 4. It is a dynamic process. 5. It is a group process.
6. What are the levels of management?	1. Top level 2. Middle level 3. Lower level
7. What are the types of management?	1. Strategic management 2. Tactical management 3. Operational management
8. What are the functions of a manager?	1. Planning 2. Organizing 3. Staffing 4. Directing 5. Controlling
9. What are the qualities of a manager?	1. Technical skills 2. Human skills 3. Conceptual skills
10. What are the challenges of management?	1. Change 2. Uncertainty 3. Complexity 4. Competition 5. Globalization

INNOVATIVE PRACTICES CHILD-TO-CHILD APPROACH IN THE QUALITY IMPROVEMENT OF EDUCATION AT PRIMARY LEVEL

A. Balapushpam

Sr. Lecturer, DIET, Chennai

The Child-to-Child concept is based on utilizing 'Child Power' to impart health and education activities. The practice of using older pupils to teach younger pupils is age old strategy utilized in India in the Gurukulas. This approach was known as the monitorial system under which younger children were taught by the older children. Now peer tutoring is widely utilized in schools and colleges in many countries including India. By this child-to child approach children pass on the message to younger children, same age children, family and community.

The objectives of child-to-child can be broadly stated to be as follows:

- To improve the level of health, nutrition, child development and social issues of school going children.
- To make learning a relevant meaningful and enjoyable experience for children.
- To enable school-going children to make qualitative improvement in life of their

younger sisters/brothers, their parents and their neighbours, thus applying facts learnt in school to daily life.

- To improve the school and neighbourhood environment through organized activities.
- To act as a supportive teaching strategy which partially relieves the burden of the teachers.

The present study was planned to implement the child-to-child approach as a strategy to enhance the reading competency in Tamil among the primary school children.

Implementation of the selected strategy

Sample

The study was conducted in a primary school in Chennai city. Purposive sampling was used to identify the subjects, 25 students in class-IV, 17 children were selected by administering reading test and evaluated with the help of '4 point scale'.

Stage	Scale	Students	Tutees/Tutors
1	Find it difficult to identify Tamil letters	5	17 (Tutees)
2	Find it difficult to read sentences	8	
3	Read without understanding the meaning of the sentences	4	
4	Read with comprehension	14	8 (Tutors)
Total		31	25

Tools

- ✧ Teacher interview schedule
- ✧ '4 Point Scale' to identify the status of students in their reading ability
- ✧ Pre-test, Post-test reading passages from Tamil text book
- ✧ Self assessment tool for the selection of tutors

- ✧ Observation Schedule
- ✧ Evaluation Proforma (for tutors)
- ✧ Researcher's diary

Implemented Activities -

Pre-intervention phase

- ✧ The reading ability of all 31 children in the selected school was tested. The status of all the children was recorded in '4 point scale'.

- ✧ The perceptions of class teacher about the children were recorded through interview.
- ✧ Tutors were selected by administered self-assessment tool
- ✧ Preparation of activity cards (word cards, sentence cards, song cards, story cards)
- ✧ Introduction of teaching learning materials to the teacher
- ✧ Training given to tutors on how to teach their tutees using activity cards

Intervention Phase

The intervention phase was carried out for a period of three months, with a frequency of five times a week. The average duration of each day was 30 minutes during the lunch hour. The tutors taught the tutees using activity cards. The activities progressed from word cards leading to sentence cards and finally song cards and story cards.

Post-intervention phase

After the implementation of the child-to-child programme, the reading competency of tutees was assessed with the help of '4 point scale'.

The tutors, tutees and teachers were interviewed to evaluate the child-to-child approach.

Results

The post intervention stage was compared with the pre-intervention stage. All the seventeen tutees, with reference to their own performance showed progress improvement.

The child-to-child strategy was also evaluated through interviews with the tutors, tutees and the class teacher. A descriptive analysis showed that all the tutors and tutees enjoyed activities that involved peer tutoring.

Implications for quality improvement

- ✧ Child-to-child is activity based and participatory in approach make learning a joyful experience.
- ✧ This approach creates a support system in a large classroom, where the teachers' capability of having personal relationship with each pupil is severely constrained.
- ✧ In multi-grade teaching set-ups child-to-child can be of great help to the teachers.
- ✧ 'Child power' can be used effectively in teaching out to girls, disabled children and other deprived groups.
- ✧ Child-to-child programme is effective in inculcating personal hygiene and health habits.

EDUCATIONAL REFORM - LET SCHOOLS BECOME CASTLES FOR TINY TOTS

V. Aruna

Lecturer, SRM School of Teacher Education & Research,
SRM University, Kattankulathur, Kanchipuram District, Tamil Nadu

The students are the architects of future India. The overall development of the country rests on the way the students are moulded in the present educational system. There should be a fictitious blend of exposure to academics and activities related to artistic and cultural values. This will help the future citizens to appreciate our traditional arts and visualize them to get away from the monotony of modern day routine.

Need and Importance of modern teaching techniques

Today's child has tremendous potential. As the children are creative, well informed and increasingly inquisitive, it is a challenging job for the teachers to draw the attention of the child. To hold their attention, teaching techniques have to be innovative, creative and something which the child can experience. A child of today wants to experiment and the multimedia is a blessing to the teaching fraternity.

Multimedia: a Milestone in the Educational System

Difficult concepts, scientific phenomena and pronunciation are easily explained and shown in multimedia with the help of animation. For example, the eruption from a volcano, eclipse, planetary motion etc. are much more interesting and clear to the student when they learn through multimedia. It is a pleasure to watch the students, growing confident, understanding the concepts, posing intelligent questions and coming to logical conclusions after viewing the topics during the multimedia classes.

Children and Classrooms

The organization of classrooms is a sure indicator of the degree to which the aims and

objectives of a school are being implemented. Classroom organization is one of the key management tasks of the teacher well-organized classes enable effective learning where there is the importance of developing independent learning. The CDs are prepared based on the syllabus in different subjects. The experts in multimedia prepare the CDs with the help of the teachers. The instructions show the CDs to the children based on the syllabus, in the basic subjects such as English, Maths, Science and Social Science. The multimedia classes can be incorporated in the regular, weekly time table, which enhance and enrich the student's knowledge.

Teaching for creative thinking

The newer courses of study at the elementary and secondary levels often include statements of such objectives as "To maintain and expand children's interest and curiosity through use of exploration in problem-solving, activity as the basis of the learning process." The teacher guides in such terms as insight problem-solving, discovery, inquiry, originality and creativity, virtually all accounts of the creative process agree that there must be openness in the creative person of new stimuli from without and to the acceptance of impulse from innovation. This suggests that the teacher must use caution in setting over restrictions limits upon those whom he is nurturing way experience and express. Discipline and self-control are necessary and criticism is obviously important. The teachers encourage creative thinking and provide opportunity for stretching the imagination and perception and accept the fantastic divergent ideas.

Extent and Depth of Impact

1. Individualized and personalized instruction, flexibility of the programme.

2. Permitting students to progress at their own rate, with many alternatives and options.
3. Greater attention to specific skill training.
4. The learning experience of the individual is guided by feedback.
5. Self Evaluative.
6. Systematic programme.
7. Instruction is modularized, A module is a set of learning activities (with objectives, pre-requisites, pre-assessment, instructional activities, post-assessment and remediation) intended to facilitate the students acquisitions and demonstration of a particular competency.

The best schools should resemble the best homes, The best homes provide continuity of carrying relations, attend to and continuously

evaluate both inferred and expressed needs, protect from harm without deliberately inflicting pain, communicate so as to develop common and individual interests, work together co-operatively, promote joy in Gemini learning, guide moral and spiritual development, contribute to the appreciation of the arts and other great cultural achievements, encourage love of place and protection of the natural world and educated for both self understanding and group understanding.

The teacher is the king pin of any system of education in any age. Anything on educational reform cannot be completed if we neglect the importance of him/her. Hence the teachers need to be reminded that there is not a profession, but a mission, a mission to make enlightened adults out of the innocent young children.

DTERT, Chennai

INNOVATIVE METHODOLOGIES IN IMPROVING QUALITY OF EDUCATION

Mrs. N. Prema

Lecturer in Education, SRM School of Teacher Education & Research,
SRM University, Kattankulathur

Education is the realization of self. Education is complete living. Education is not filling a bucket, but lighting a fire. School is one of the most important social institutions to serve the society for the specialized teaching of the young. It plays a crucial role in moulding the society, which builds it. In fact the function of developing the future citizens is entrusted to the schools.

Importance of the Study

Quality improvement becomes increasingly important as institutions achieve greater control over their own affairs. Greater freedom has to be matched by greater accountability. The level of involvement of the teacher in imparting knowledge to the students and the facilities provided by the school play a vital role in determining the quality of education. An attempt has been made to analyse the teaching methodologies adopted by teachers in Government Elementary School and Private Elementary School.

Objectives of the Study

1. To analyse the teaching methodology adopted by the teachers of Government and Private Schools at elementary level.
2. To find out the teaching methodology adopted between the teachers of Arts/ Science group in Government and Private Schools at elementary level.

Limitations of the Study

1. The investigator has taken into consideration only about the methodology adopted by the teachers at elementary level.
2. It includes only a small number of samples (60 teachers) of elementary schools.

The educational organization should concentrate more on the development of

elementary schools, who are in a position to decide their future career.

Hypotheses

1. There is a significant difference in the teaching methodologies adopted between the teachers of Government and Private schools.
2. There is a significant difference in the teaching methodologies adopted between the Arts group teachers of Government and Private schools.
3. There is a significant difference in the teaching methodologies adopted between the Science group teachers of Government and Private schools.
4. There is a significant difference in the teaching methodologies adopted between the Arts and Science group teachers of Government schools.
5. There is a significant difference in the teaching methodologies adopted between the Arts and Science group teachers of Private schools

Methodology

For the present study the sample comprising of 60 teachers from Arts and Science stream were taken (30 women teachers of Government Elementary school and 30 women teachers of Matriculation School handling elementary section). Random survey method was adopted to collect the data. An inventory was constructed based on the innovative methodologies adopted in the school at elementary level and standardized by the investigator which consisted of 35 statements. The content validity of the tool was established on the basis of expert's opinion. The data thus obtained were quantified by using appropriate statistical technique i.e., t-Test.

Table 1
Comparison of Teaching Methodologies between the teachers of
Government and Private Schools

No.	School	N	M	SD	SED	t-value (0.05 level)	Remarks
1.	Government	30	112.73	5.87	2.13	0.87	NS
2.	Private	30	114.60	10.11			

N: Total number of samples, M: Mean, SD: Standard Deviation, SED: Standard Error,
SS: Statistically significant, NS: Not Significant

From Table 1, it is observed that the 't' value is less than the table value at 0.05 level of significance. Hence there is no significant difference in the teaching methodology

adopted between teachers of Government and private schools. Therefore the hypothesis is retained.

Table 2
Comparison of Teaching methodologies between the Government and
Private school teachers of Arts group

No.	School	N	M	SD	SED	t-value (0.05 level)	Remarks
1.	Government	18	112.83	6.83	3.16	1.33	NS
2.	Private	15	108.60	11.19			

N: Total number of samples, M: Mean, SD: Standard Deviation, SED: Standard Error,
SS: Statistically significant, NS: Not Significant

From Table 2, it is observed that 't' value is less than the table value at 0.05 level of significance. Hence there is no significant difference in the teaching methodology

adopted between the government and private school teachers of Arts group. Therefore the hypothesis is retained.

Table 3
Comparison of Teaching methodology adopted by Government and
Private school teachers of Science group

No.	School	N	M	SD	SED	t-value (0.05 level)	Remarks
1.	Government	12	112.58	4.31	1.42	5.609	SS
2.	Private	15	120.60	3.11			

N: Total number of samples, M: Mean, SD: Standard Deviation, SED: Standard Error,
SS: Statistically significant, NS: Not Significant

From the table 3, it is observed that the 't' value is greater than the table value at 0.05 level of significance. Hence there is a significant difference in the teaching

methodology adopted between the government and private school teachers of science group. Hence, the hypothesis is accepted.

Table 4
Comparison of teaching methodology between Arts and Science teachers
of Government School

No.	School	N	M	SD	SED	t-value (0.05 level)	Remarks
1.	Arts	18	112.83	6.83	2.22	0.112	NS
2.	Science	12	112.58	4.31			

N: Total number of samples, M: Mean, SD: Standard Deviation, SED: Standard Error, SS: Statistically significant, NS: Not Significant

From Table 4, it is observed that the 't' value is less than table value at 0.05 level of significance. Hence there is no significant difference in the teaching methodology adopted between the arts and science teachers of government school.

Table 5
Comparison of teaching methodology between Arts and Science teachers
of Private School

No.	School	N	M	SD	SED	t-value (0.05 level)	Remarks
1.	Arts	15	108.6	11.19	2.99	4.001	SS
2.	Science	15	120.6	3.11			

N: Total number of samples, M: Mean, SD: Standard Deviation, SED: Standard Error, SS: Statistically significant, NS: Not Significant

From Table 5, it is observed that the 't' value is greater than the table value at 0.05 level of significance. Hence there is a significant difference in the teaching methodology adopted between the arts and science teachers of private schools. Hence the hypothesis is accepted.

Major findings of the study

1. There is no significant difference in the teaching methodology adopted between the teachers of government and private schools.
2. There is no significant difference in the teaching methodology adopted between

the government and private school teachers of Arts group.

3. There is a significant difference in the teaching methodology adopted between the government and private school teachers of science group.
4. There is no significant difference in the teaching methodology adopted between the arts and science group teachers of government school.
5. There is a significant difference in the teaching methodology adopted between the arts and science teachers of private schools.

DEVELOPMENT OF SCIENCE CONCEPTS - THROUGH IMPROVISED AIDS - AN INNOVATIVE APPROACH TO PROMOTE QUALITY IN ELEMENTARY EDUCATION

A. Grace Sophia

Lecturer, Pre-Service Branch, District Institute of Education and Training,
Munanjipatti, Tirunelveli District

Science Can be defined as the process by which we increase and refine understanding of ourselves and of the universe through continuous observation experimentation, application and verification. The aims of teaching science in Primary schools should be to develop proper understanding of the main facts, concepts, principles and processes in the physical and biological environment.

A concept is the basic unit of all types of learning. The main aim of the research is to find out how the usage of improvised aids helps in the development of science concepts.

Need and Significance

Sensation and Perception are the two stages which lead to concept formation. Perception level of primary children is high as most of the concepts are new for them. They like novelty in learning too. Formation of the concepts at the primary stage lays the foundation to the future development of the Concepts. Experimental work is not possible in the absence of adequate science apparatus. Science teachers can use improvised aids to help their students enjoy learning science through a variety of activities. When the students comprehend the concept correctly through real objects, models and experiments the pace of concepts development goes up enormously and in the desired direction.

Objectives

The following were the objectives of this study.

- To develop scientific concepts.
- To promote learning by doing.
- To inculcate scientific attitude and temper.
- To promote self learning.
- To develop scientific skills.

- To help the students to prepare improvised aids of their own from local resources.

About the improvised aids

These improvised science aids are meant for fifth standard students. It is widely accepted that learner centered, concept oriented and competency based education helps in improving the overall quality of education at Elementary level.

Selected Scientific Concepts

25 Scientific concepts are identified from 5 competency areas of science in fifth standard level for the proposed study.

Physical Science

1. Force

- a) Concept of Sling shot (Force is exerted by stretching)
- b) Concept of bow and arrow (Force is exerted by bending)
- c) Concept of spring balance (Measuring device for force)

2. Pressure

- a) Concept of air pressure.
- b) Concept of Weight of the air.
- c) Concept of upward pressure of the air.
- d) Concept of Air circulation.
- e) Concept of water pressure in various depths.

All these concepts are explained by demonstration of experiments through improvised aids.

3. Simple Machine

- a) Concept of a Lever.
- b) Concept of the effort load and fulcrum.
- c) Concept of the pulley.

- d) Concept of a first order lever.
- e) Concept of a Second order lever.
- f) Concept of a third order lever Devices related to the concept simple machine are prepared from the collar cloth and their working mechanism can be explained to the students.

Biological Science

4. Concepts related to the Human brain

- a) Concept of the nervous system.
- b) Concept of neurons.
- c) Concept of sensory nerves.
- d) Concept of motor nerves.
- e) Concept of the structure and functions of the brain.

The human brain improvised model has been prepared from paper mesh and their structure and function can be explained to the students.

5. Concepts related to the human skeletal system

- a) Concept of the skull and the trunk.
- b) The back bone and the chest bone.

- c) The limbs.
- d) The joint
- e) The pivot and the gliding joint.
- f) The hinge and the ball and socket joints. The human skeletal system improvised model has been prepared with the help of stiff white thread and their structure and function can be explained to the students.

Design of the study and Date Analysis

The investigator adopts one group pre test - Post test design for the study.

Administering the Pre-test

The Pre-test was administered for thirty fifth standard students of Panchayat union Primary School Munanjipatti of Tirunelveli District.

- a) The pretest Questionnaire based on items on physical and Biological Science.
- b) Treatment was given for 45 minutes per day. Totally it was given for 15 days.
- c) The post test based on items on physical and Biological Science. The Pre test was used as the post test.

The difference between Pre test and post test scores of the fifth standard students in their development of science concepts

Concepts in areas	Tests	Number	Means	SD	Calculated 't' Value	Remark at 5% level
Force	Pre-Test	30	2.67	0.94	7.72	Significant
	Post-Test	30	4.73	1.12		
Pressure	Pre-Test	30	2.93	0.89	10.15	Significant
	Post-Test	30	5.07	0.73		
Simple Machine	Pre-Test	30	4.03	0.95	7.79	Significant
	Post-Test	30	5.63	0.60		
The Human brain	Pre-Test	30	2.47	0.56	12.53	Significant
	Post-Test	30	3.87	0.34		
The Human Skeletal system	Pre-Test	30	2.47	0.56	4.16	Significant
	Post-Test	30	2.93	0.25		
General Science Concepts	Pre-Test	30	14.00	1.35	21.03	Significant
	Post-Test	30	22.20	1.66		
(At 5% Level Significance the table Value of 't' is 1.96)						

Findings

The 't' test result reveals that there is significant difference between pretest and post test scores of the fifth standard students. This may be due to the fact that the usage of improvised aids have influenced the fifth standard students in effective concept learning.

Conclusion

The Primary goal of Science education is to help students to develop mastery in concept level. Experiments and practical sustain the interest of Students in learning science. This study illustrates how improvised aids can improve the quality of science teaching.

DTERT, Chennai

LANGUAGE EDUCATION THROUGH GAMES - AN INNOVATIVE APPROACH

T. Dhanuskodi

Senior Lecturer, DIET, Kalaiyarkoil

Innovation means anything new and different from what is conventionally practiced norm. In the field of education it may be with respect of materials, methodology, approach, technique, evaluation etc. since the beginning of the teaching, the teachers have been trying to adopt something new in their classrooms which means to do something innovation.

In the field of education innovation can be in defining the objective the methodology to be adopted in the preparation of instructional materials and teaching aids, in classroom techniques and evaluating procedures. Innovation is needed not only to achieve the objectives, but also the childrens monotony can be reduced. This will also help the teachers an interest in their profession.

Innovation helps us to be alert and enables us to live meaningful every moment of our academic life. Once we get satisfaction in the work that we do, we also progress mentally there by we will be in a position to make our lives more beautiful.

Language Teaching

Language teaching means transfer of skills along with the grammatical and socio linguistic norms, with unambiguous communication. Since unambiguous communication both oral and written in the main purpose of language learning. Whatever helps to enable the learners to achieve greater communicative skill, is what should be adopted. Any innovation has to result in the learners achieve this goal.

Language Games

The language games encourage children to read further and expand their vocabulary. They relieve children from the boredom of routine types of exercise. Games sharper their thinking process. Encourage children to go in a search of extra reading materials and reference

materials. The language games intended to develop the reading and writing skills.

Given below is a list of exercise that could be adopted for various levels to prepare games. These have to be converted into game format that captivates the interest of the learners. Each and every game has to have an interesting title, specific learning objectives, procedure to play the game or the instruction, specifications for time and score.

- Identify the similar letters in the given group.
- Identify the dissimilar letters in the given group of letters.
- Find out and write the missing letter in the series (based on point of manner of articulation)
- Find out and write the letter which is repeated in the given words.
- Find out and write the letter which are substituted in the given words.
- Find out the word which is missing in the series of given word.
- Make a word chain by writing a new word by adding every time a letter to the already formed word.(2 letter word, 3 letter word, 4 letter word etc.)
- Make a word chain by substituting th first/ middle / last letter of the word by another letter.
- Complete the word by choosing the appropriate letter out of the given choice.
- Make as many words as possible by rearranging the letters of the given words.
- Reorder the jumbled words and write them correctly.
- Solve the cross word puzzles (with the spelling using letter cues).

- Find out who am I? (For testing the spelling using letter cues).
- Find out who am I using meaning cues in prose or verse.
- Find out who am I by matching parts of words of sentences or parts of pictures and incomplete letters/ words.
- Find out the word which does not join the group
- Find out the relationship among the words add one, two or three more words to the chain or pairs of words.
- Find out names of specifies items such as fruits, animals, body parts, festivals etc., using the given cues such as pictures, scattered letters. Parts of pictures and words, broken sentences etc.
- Match the given proverbs with the pictures.
- Match the given proverbs with their meanings.
- Match the correct responses to statements given.
- Recall and write as many words as possible which could be associated with each of the given words.
- Solve the riddle within the word.
- Solve the riddle in poetic sequences.
- Rearrange the words in the alphabetical order.
- Replace parts of words in the alphabetical order.
- Drive new words out of the given ones.
- Using the letter wheel, letter square, letter triangle etc., generate more words a per specifications.
- Match the given poetic lines suitably.
- Complete the paragraph by filling up the words form the proper places.
- Complete the paragraph by filling up the words appropriately.
- Build up sentences by addition of words.
- Complete the conversation by supplying the dialogue of B in a situation where A 's dialogue is given.
- Complete the conversation by adding few more sequences.
- Substitute the underlined words in the paragraph with suitable alternates.
- Find out the suitable proverbs, idioms, for the given situations.
- Enumerate proverbs and idioms using the given words such as body parts, kinship terms, puraninc names etc.

There language games could be used either by the learners themselves or the learners may be made to play the games under the supervision of teachers.

EFFECTIVENESS OF DIAGRAM BOOKLET IN TEACHING EROSIONAL LAND FORMS OF GLACIER FOR STD VIII STUDENTS THROUGH ACTIVITY BASED APPROACH

L. Sundarameenakshi

Lecturer, DIET, T. Kallupatti, Madurai

“Quality Primary Education is our Nation’s Strength”

Geography today covers a vast field and comprises many branches of scholarship in its fold. It has a educative value. Geography is dynamic never static. It needs innovative methodologies and new classroom practices. Geography knowledge of the world is the result of the landscape. Geomorphological aspect in physical Geography deals with landscape formed by Geomorphological agent like river, glacier, underground water, waves and winds. The work of these Agents is Erosion, Transportation and Deposition.

Need of the Study

The method of teaching alone will not be the only factor to solve their problems.

No one method is suitable in all situations and for all learners. Mere verbal teaching is not enough to teach the Geomorphological land forms made by glacier. Only in Std. VIII, Geomorphological Lessons are introduced. Most of the students do not have basic idea about the concepts in physical Geography.

Besides, students have lack of motivation to learn erosional land forms of glacier. So teaching of landforms of glacier needs some innovative and creative approaches. *Learning becomes permanent when it is carried out through activities. How the teachers teach is more important than what they teach.* Hence the Investigator has decided to make an earnest attempt to teach erosional landforms of glacier through activities using Diagram Booklet.

Statement of the Problem

Teaching of Erosional landforms of glacier for Standard VIII student through activities using Diagram Booklet.

Objectives of the Study

1. To teach Erosional landforms of glacier to the VIII Standard students through activities.
2. To find out the effectiveness of Diagram Booklet to teach erosional landforms of glacier.

Rationale for Designing this Innovative Practices

The main purpose of this innovative practices is to develop curiosity among students in learning geography and recognize the name and formation of erosional landforms of glacier by using the new Teaching Learning material entitled, “DIAGRAM BOOKLET”

Operational Definition of the Diagram Booklet

The Booklet which shows the erosional landforms of glacier depicting the name leading the students to identify the formation of landforms in diagram booklet.

Methodology

This study was carried out at standard VII. The sample size was 25. This study was carried out in one of the middle schools in Kallupatti block. Achievement test paper was prepared by the Investigator for both pre-test and post-test. The test paper carries 25 marks.

From the Pre-test performance, the investigator came to understand that the most of the students could not say the names and formation of the erosional landforms of glacier. Hence the Investigator started to give activities using Diagram Booklet.

Implementation

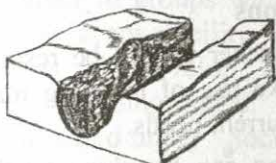
Innovation and techniques are the day to-day activities which the teacher may design for a particular lesson.

“Activities speak louder than words”

Step:1 Making the students observe the shape of the landforms of glacier.

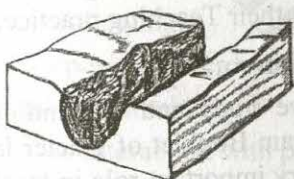
Activity :1 Sample - ‘U’ Shaped Valley

Leaf: 1



The students were asked to observe the shape of the landforms.

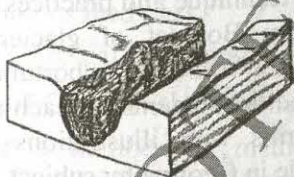
Leaf: 2



The students were provided with diagram booklet having Leaf:2.

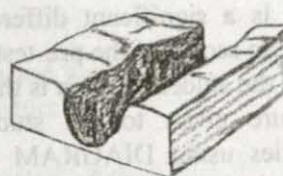
They were instructed to identify the numbers written in the leaf.1

Leaf: 3



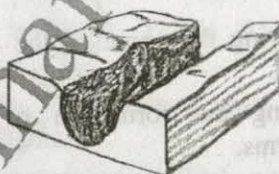
The students were asked to say the names of the Land forms.

Leaf: 4



The students were instructed to read the names and formation of Erosional landforms with the help of the teacher.

Leaf: 5



The students were instructed to answer the questions in leaf 5 of the Booklet.

At the end, the students were asked to collect all the leaf (Leaf: 5) and instructed to tell the information gathered from the diagram Booklet like:-

Shape of the Valley : ‘u’

The number written in Location is 1: ‘u’ shaped valley

The name of the land form is ‘U’ shaped valley.

Formation

It is a erosional landform of glacier.

It is flat at bottom and steep at the sides.

Like this other erosional landforms like **Hanging Valley, Cirque, Horn, Arêtes** were introduced to the students.

Distribution of the ‘t’ score between the mean scores of the pre test and post test of the students.

Test	N	M	SD	Calculated ‘t’ Value	Table Value	Remarks 1% level
Pre test	25	25	10.9	17.7	2.58	Significant
Post test	25	80	11.2			

Findings

- There is a significant difference between the mean scores of the pre-test and the post-test of the students. This is the result of the exposure given to the students through activities using DIAGRAM BOOKLET. Hence the hypothesis is accepted.
- It inspires the slow learners in learning Geography.

Educational Implications

The students in VIII have acquired the ability in.

- Identifying the name of the landforms of glacier.
- Knowing the formation of the glacial landforms.
- Developing drawing Skill.
- Increasing the academic achievement level.
- Promotes self- learning.
- They were confident in giving answers.

Diagram Booklet - Nature and Philosophy

The idea behind diagram booklet is to make curriculum transaction in Geography more meaningful among the students and provide content enrichment to the teachers. The Diagram booklet provides information about the shape, name and formation of the landforms of the glacier.

It promotes skills like observation, Interpretation, Communication and drawing among the students. The Salient and thematic features of the Diagram Booklet are:-

- Needs only charts and writing materials
- Locally Available.

- Easy to prepare.
- Easy to carry.
- Attractive with its shape.
- Students can easily prepare it,
- The time required for the preparation of one landform is less.

Suggestions

- The teacher should be resourceful enough to make use of teaching material to cope with current needs.
- Training can be given to the teachers in DIET, specially for Geography.
- The student-teacher can be informed to prepare such Teaching Aids and activities during their Teaching practice.

Conclusion

The above study and the finding reflect that the Diagram Booklet of glacier landforms can play a very important role in teaching learning process. This study can help both experienced and new teachers in developing the range of teaching techniques. The students involved very enthusiastically in identifying and preparing the Diagram Booklet.

To reach this goal, the teacher needs innovative technique and practices in teaching. The diagram Booklet of glacier landforms created all the available opportunities for the teachers and the students to teach and to learn the landforms with illustrations to develop their attitude in Geography subject.

To say that this Diagram booklet practice in glacier landforms have made the classroom as "Information Paradise".

COOPERATIVE LEARNING

S. P. Seenivasan

Lecturer, District Institute of Education and Training,
Vanaramutti, Thoothukudi District

Cooperative Learning is defined as student working together in groups with group goals but individual accountability. This feature helps students to develop a pro social commitment to helping others. Co-operative learning is classified under 'Social family' in the models of teaching. It is an effective learning process to attain most of the Competencies at Primary Level.

The Co-operative learning is beneficial because of the following: -

1. It involves positive interdependence.
2. Individual accountability.
3. Face to face interaction with peers.
4. Use of Pro Social skills.
5. Group Processing of academic task.
6. Suitable for descriptive topics.
7. Develop self-confidence.
8. Easy to comprehend through Simple activities.
9. Continuous feed back.
10. Provides social interaction.

Methods of Cooperative learning

There are a number of methods of Co-operative learning. Some of the Commonly used methods for learning together at primary level are:

1. Group Investigation
2. Learning together
3. Jigsaw I
4. Jig saw II

Cooperative Learning is a teaching strategy involving pupils' participation in small learning groups in which pupils learn through intra group and inter group interactions.

Procedure of implementing Cooperative learning:

A. Formation of Groups:

The class should be divided into small groups, heterogeneity is kept among students in respect of sex, intelligence and religion.

B. Preparation of Cooperative Learning Sheets

- Select a topic suitable for Cooperative learning.
- Divide the topic into meaningful components.
- Then preparation of Task and worksheets for each component.
- Assign the students to Base Group and Expert Group.

C. Orientation to the Students

Every learning point should be discussed collectively. A student who does not understand could be explained well by another student. They should work as a team to achieve the set goals.

D. Conducting the cooperative Learning Session

- Allot time for cooperative learning sessions.
- All groups should carry out learning activities according to guideline given to the sheets.
- Monitor the work of expert group so that each member of the group will attain the group goal.
- When the expert teams have finished their Cooperative study reconstitute the original Base Groups.
- Expert on each topic from each group will tutor other members of the group.
- Monitoring Base Group cooperative learning.

Problem solving, decision making, Communication self-awareness, Creative thinking are some of the core life skills acquire through Co-operative learning.

Details of the Study conducted:

A Sample of 32 students of Standard V was selected from STC Branch Primary School of Vanaramutti Thoothukudi District, and the study was conducted in the primary school. Model of Jigsaw used in the study is given below.

- The topic selected for the study: Vitamins and their deficiency diseases.
- Class: Standard V, Environmental Science
- The topic was divided into the following major components

Vitamin - A (A)

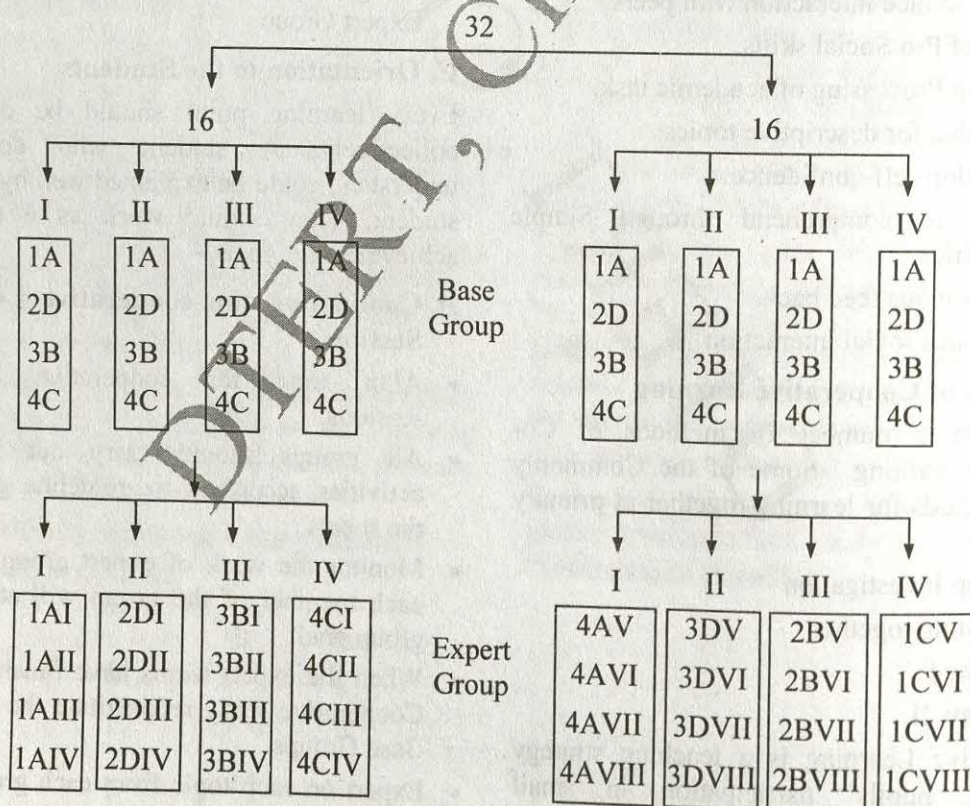
Vitamin - B (D)

Vitamin - C (B)

Vitamin - D (C)

- Task sheets, Worksheets and Evaluation sheets for the each component were prepared.
- The sample students (32) were assigned to base group
- The Task sheets, Worksheets and Evaluation sheets had given to the groups with necessary explanation.
- Expert on each topic from each group guided other members of the group.
- When all the groups were finished their co-operative learning the base groups were reconstituted.

The constituted Base groups and Expert groups had shown in the block diagram.



Evaluation

Evaluation Sheets were introduced to find out the attainment level of the students as few given hereunder.

Deficiency disease of vitamin A is:

Vitamin D is rich in:.....

Deficiency disease of Vitamin B is:.....

Vitamin C is rich in:.....

This study reveals positive effect among the students. They learnt enthusiastically. The level of achievement is also higher.

Conclusion

Cooperative Learning as a Learning strategy enables the students to perform academic events in non-threatening environment because of the less inhibition they have to experience within their friend circle. In short Cooperative learning is an effective strategy for achieving the ultimate aim of education the all round development of the personality of an individual, in the quality of Education at Elementary level.

DTERT, Chennai

COOPERATIVE LEARNING

T. Rohini Devi

Senior Lecturer, DIET, Chennai

Of the ten major competencies to be attained by teachers and teacher educators, as advocated by National Council for Teacher Education, the transactional competency stresses the importance of varied innovative pedagogical practices to be adapted during the process of teaching-learning. Cooperative Learning is one of the strategies that yields better results when compared to other practices.

What is Cooperative Learning:

Cooperation is “working together to accomplish shared goals” (Johnson and Johnson 1989). Whereas collaboration happens in both small and large groups, Cooperation refers primarily to small groups of students actively involving together on a task. It is a generic term for various small group interactive instructional procedures. In such a successful teaching strategy, small groups, each with students of different levels of ability use a variety of learning activities to improve their understanding of their subject. Each member of a group is responsible not only for learning but also enable his team mates to learn and thereby creating an atmosphere of achievement. The team mates work through the task until all successfully understand and complete it. Hence it is a type of active learning and can be defined as “The instructional use of small groups so that the students work together to maximize their own and each other’s learning” (David W. Johnson, Roger. T. Johnson and Karl A. Smith).

Why Cooperative Learning

It is quite amazing that there is a long history of research on Cooperative, competitive and

individualistic efforts. Since the first study in 1898, nearly 600 experimental studies and over 100 correlation studies have been so far conducted (for a complete review Johnson and Johnson 1989 may be referred). The outcomes of the above studies can be classified into three major categories: a) achievement/productivity, b) positive relationships and c) psychological health. Compared with competitive and individualistic efforts, Cooperative learning results in: a) higher achievement and greater productivity, b) more caring, supportive and committed relationships and c) greater psychological health, social competence and self-esteem.

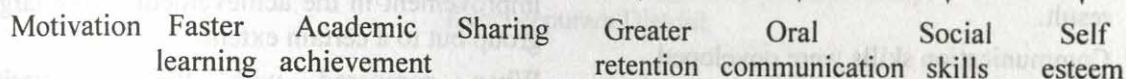
Components and Characteristics

Johnson and Johnson and Holubec 1993 have pinpointed the essential components of Cooperative Learning as positive interdependence, face-to-face promotive interaction, individual and group accountability, interpersonal small group skills and group processing. The 5 distinct characteristics of Cooperative Learning are:

- students work together on learning activities that are best handled through book work.
- students work together in small groups consist of 2 to 5 members.
- students use Cooperative, pro-social behaviour to accomplish their learning activities.
- students are positively interdependent. Activities are structured.
- students are individually accountable or responsible for their learning.

Advantages

Cooperative Learning



Further it provides more metacognition, more new ideas and solutions to problems and higher quality reasoning strategies.

Activities

In Cooperative Learning, varied class activities such as Jigsaw, Think-pair-share, Round Robin brainstorming, Three minute review, Numbered heads, Team-pair-Solo, Circle the sage, Partners are being adopted.

Study

The investigator is handling the subject "Challenges in Indian Education" to student teachers of special batch in DIET, Chennai. Under the unit - Economic Development, there is a lesson on 'Education and economic development'. The five concepts of Production and Distribution, Human Resource Development, Self Employment, Population Education, Life Oriented Education were taken for Cooperative Learning method by adopting Jigsaw activity.

Learning by Cooperative Method

The investigator divided the class into five groups - each consists of five members. This was known as base group. Each member in each group was given a subtopic and the investigator asked the student-teachers to study their portion individually. After the completion of their individual study, they were asked to form groups corresponding to their subtopic, which they have chosen. Hence there was formation of five groups - each consisting of five members. These groups were termed as expert groups. Then the investigator allowed the expert group members to discuss what they have studied individually while in base groups.

This process may be represented as follows:

Base Group formation

A (1,2,3,4,5)

B (1,2,3,4,5)

C (1,2,3,4,5)

D (1,2,3,4,5)

E (1,2,3,4,5)

Expert Group formation

A1,B1,C1,D1,E1: Production & Distribution

A2,B2,C2,D2,E2: Human Resource Development

A3,B3,C3,D3,E3: Self Employment

A4,B4,C4,D4,E4: Population Education

A5,B5,C5,D5,E5: Life Oriented Education

After the discussion for about an hour, the student-teachers were asked to return to their base groups once again and were asked to explain to one another what they have discussed in the expert groups. By this approach, all the student-teachers got clear ideas about the topic "Education and Economic Development". During this process the student-teachers were allowed to clear their doubts that arise, by discussion with the investigator.

After the discussion with the group members and the interaction with the investigator, the student-teachers were evaluated on the concept specified above. The performance of the student-teachers were found to be very effective.

Outcomes

- ✧ All the student-teachers participated actively.

- ❖ Learning interest was sustained throughout the process.
- ❖ The concepts were learned without any difficulty.
- ❖ Activity based learning yielded effective result.
- ❖ Communication skills were developed.
- ❖ The relationship between the teachers and the taught was cordial.
- ❖ Team spirit was maintained.

- ❖ The teacher acted as mentor and facilitator.

Thus the Cooperative Learning method adopted by the investigator was proved to be more effective than the conventional method. The conventional method will also make improvement in the achievement of the target group but to a certain extent.

When compared with the Cooperative Learning method, the conventional method is not so fruitful.

DTERT, Chennai

REASONABLE APPLICATION OF COMPUTER TECHNOLOGY AS RELATED WITH COMPUTER ANXIETY AND COMPUTER SELF-EFFICACY

Jomy Johnson

Ph.D. Scholar, School of Teacher Education and Research,
SRM Institute of Science and Technology, Deemed University,
Kancheepuram District

The revolution in computer technology continues to play an ever-increasing role in today's culture, affecting individuals of all ages from the pre-kindergarten child to adults over 60. Computer technology has progressed from the scientific area where it first made its impact to the present and to its appearance in all areas of business, education and society. Computer mediated communication (CMC) is fast becoming an intricate part of our society. Exposure to this new medium gives one the opportunity to acquire unlimited amounts of knowledge and a chance to communicate with others around the world. It is a fast way to create, send and consume new information. CMC extends our mental capabilities and enhances our intellect. Yet there are many people who will be left behind in the technological quest for the faster and more efficient mode of communication. Our access to people, places and information are changing. Libraries now use computer programmes to catalogue. A real change can be found in education. Despite income, school budgets or demographics soon all students will have access to information through the internet. E-mail is taking the place of inter-office correspondence. Business is rapidly becoming computerized. Students and workers will need to be comfortable with computers.

More and more, professional success depends upon reasonable application of computer technology. However, not all people find easy access. Certainly, two major hindrances are computer anxiety and lack of computer self-efficacy. As the academic and business environments continue to move forward in computer technology, the gap is widening for those people who experience computer anxiety and less computer self efficacy. Feelings of

anxiety toward computers and computer use, is common, affecting 30 to 40% of the population. Researchers agree, reporting that one third of all college students experience some type of technophobia. Researchers believe that students with this phobia may have done well using card catalogues in the library or blackboards in the classrooms. Yet, with technology moving into these libraries and classroom, and computers becoming an essential teaching tool, technophobes are struggling. Does potential users' attitude affect or influence their computer usage? Will computer increase computer experience reduce anxiety? What can be done to alleviate computer anxiety? What can be done to attain computer self-efficacy. To answer these questions one must first understand the problems associated with computer anxiety. Anxiety by definition, is intense dread, apprehension, or nagging worry. Computer anxiety as defined by Howard, Murphy & Thomas (1986) is the "fear of impending interaction with a computer that is disproportionate to the actual threat presented by the computer." Computer anxiety is a concept specific anxiety type; that regularly occurs in a specific type of situation. Those who are computer anxious may experience fear of the unknown, feeling of frustration, possible embarrassment, failure and disappointment.

Computer anxiety has been associated with decreased use and worse, avoidance of information technology. Avoidance can seriously affect some students' academic progress and performance in business settings and ultimately affect career opportunities. The computer with its widespread influence has placed demands on everyone to become

current with its technology. This has led to stress and anxiety for many, prompting research into the phenomenon of Computer anxiety.

Researchers define computer anxiety as the psychological state of individuals who have negative reactions towards using computers. It is also described as the fear of impending interaction with a computer that is disproportionate to the actual threat presented by the computer. The phenomenon of computer anxiety includes an apprehension of danger, a sense of dread and failure. The computer user fears becoming too dependent on technology, losing control of, or being replaced by the computer. He is afraid that "pushing the wrong button" will somehow cause the computer to blow up or self-destruct, affecting the user's performance in the job or educational setting. Stress, embarrassment, frustration, irritation, panic and the fear of exposing one's ignorance are all part of the feelings associated with computer anxiety. The mind of the computer phobic is in chaos and has difficulty concentrating and even separating thoughts. Add to this the pressures of an authority figure, either job-related or school-related, and there is a complete breakdown of any input learning - a sort of "paralysis of the mind," leading to symptoms of stress or to the easiest way out - avoidance of the "dreaded object." In the state of stress, the autonomic nervous system awakens a wide range of symptoms: glazed eyes, clammy hands, increased heart rate, sick stomach, posture rigidity, tightness in the throat, crying, desperation and anger with such declarations as everyone knows this but me or I hate computers. This has led to less computer self efficacy.

Although much of the research treats the problem of negative anxiety, "It is said that under certain circumstances anxiety may facilitate performance". This has led to computer self efficacy. For students of high ability, it is possible that some anxiety can improve performance, but this would depend on the whole motivational process and how

variables interact with each other. Such variables as prior experience, self-concept, outcome expectations, or difficulty of task at hand interact with each other and contribute to the development of the anxiety state. The individual's own expectations or perception of the task, ability, possible successful outcome, together with prior successes or failures all influence the degree of anxiety experienced. Researchers note that in fact, "the presence of other people (parents, teachers, peers) does have effects on performance in simple tasks and that such effects depend on the anxiety level of the child" Left untreated computer anxiety leads to decreased computer use and computer avoidance. Long-term consequences include poor academic progress, lower productivity at work, limited chances of advancement and reduced job security.

Types of computer anxiety

- a) Uncomfortable user exhibits a dislike for computers but has only a mild anxiety which is internal and/or overt. They often make negative statements about computer use. The uncomfortable user often requires more experience in order to appreciate the value of computer use rather than intervention.
- b) The cognitively anxious user has primarily internal manifestations. Lacking confidence in their ability with computers they fear making mistakes, damaging the hardware or causing the system to crash. Under the mistaken assumption that other learners find technology easy, cognitively anxious users fear that asking for help will reveal their shortcomings.
- c) The anxious technophobe is falling apart in front of the computer, having any or all of the following: trembling hands, heart palpitations, profuse sweating, headaches or other symptoms that exhibit obvious physical discomfort. Anxious technophobes make a high priority of avoiding computer use. One-on-one counseling and instruction is usually required.

Computer anxiety has been put into three categories: normal, computer anxious, and phobic. Phobic are identified by acknowledging a combination of reported symptoms including avoiding using a computer, feelings of unreality, fear of losing control, sweaty palms, pounding heart, tightness or pain in the chest, trembling or shaking, shortness of breath, and dizziness or light headedness when faced with a compute. The computer anxious avoid computers when possible and might be uncomfortable in situations requiring their use but rarely report the physical symptoms present in true phobias. More and more, professional success depends upon reasonable application of computer technology. However, not all people find easy access. Certainly, two major hindrances are computer anxiety and lack of computer self-efficacy. There are theoretical as well as empirical arguments for this claim. According to learning theory (Skinner, 1961), people will

avoid aversive stimuli, as for example a computer which arises anxiety. According to self-efficacy theory (Bandura, 1977) people will only try a behavior if they believe themselves capable, that is, if they feel efficacious about this behavior. Empirical results indicate that computer anxiety has negative effects on computer use and computer performance. For computer self-efficacy, empirical results indicate positive effects on interest in using computers, need for learning computer skills, and computer performance. Because computer anxiety and computer self-efficacy have such far-reaching effects, computer education - especially for beginners - should not only aim at mediating knowledge, but also at reducing computer anxiety and enlarging computer self-efficacy. For this purpose, empirically valid knowledge about factors influencing these variables is required.

A STUDY ON THE EFFECT OF COMPUTER MANAGED INSTRUCTION IN TEACHING PHYSICS AT HIGHER SECONDARY LEVEL

A. Jayaraj and Dr. U. Prabhakaran

Lecturers, DIET, Aduthurai-612 101, Thanjavur District

Education systems around the world face formidable challenges that are taxing conventional strategies. Education and learning are the most important of all human activities and always have been the principal means of creating productive and sustainable societies. New approaches are needed to address persistent problems of the past and provide students with an education appropriate to the needs of a modern, information-based global economy. Hence Computer and communication technologies are able to offer opportunities to significantly improve teaching and learning.

We are living in the age of computer. The applications of computer exists in all fields such as engineering, medicine, education, agriculture, space etc. The wonders of science in the twentieth century is computer. We can share information from one place to other place even in the space. This is possible because of the revolution of computer and internet which is the decade of convergence. In the modern trend in Education it is better to integrate the technology into teaching and learning. The destiny of India is being shaped in her classrooms according to Dr. S. Kothari. Education is the main force which influences the quality of life. The present day society witnessed by the presence of technology and information explosion. Computers improve learning in schools through individualized learning. The learning by Computer is essential one. Today classroom teaching is not effective one since school system emphasizes fully on rote-learning. The students get dull, fatigue, boredom in learning due to older teaching methods. Computer is often viewed as tools which can be used to achieve diverse educational ends similar to the way that textbooks, laboratory equipment, curricula, or other educational technologies can be used to

enhance education. Teaching physics at the secondary and higher secondary level can be a rewarding experience. Physics is the branch of science which deals with nature and natural phenomenon. Physics - the study of matter, energy and their interactions - is an international enterprise, which plays a key role in the future progress of humankind. Information and Communication Technology (ICT) is universally acknowledged as an important catalyst for social transformation and national progress. Physics is the illusionary phenomenon so that the students are not able to understand the concept of physics. The facts, truths and laws are beyond the knowledge of the students in physics. Many students' difficulties in physics are mainly to difficulties with mathematics. The influence of Technology can be brought in education by means of Computer Managed Instruction (CMI). The teacher with technology can be replaced by the teacher without the technology. He should use new methods and innovative ideas in the classroom. The method adopted by the teacher must suit to the learners' interest. In order to bridge the gap between the teacher and the student, he should use the Information and Communication Technology in classrooms. Appropriate Computer Technology develops users in control of their own learning. It encourages both independent and co-operative learning. Teaching through multimedia gives interactive environment for the teaching of physics. The potential for computers to significantly enhance learning and teaching are the most important reasons for introducing computers into schools and integrating them into all aspects education.

Computer Managed Instruction (CMI)

In order to enable students to function successfully in the twenty-first century, there

is an immediate urgency to integrate technology into instruction. Computer Managed Instruction involves the use of computers connected together via a Local Area Network. CMI is used to assist both the teachers and the students in the learning process. Computer is a treasure which accompanies the students everywhere. CMI offers management administration system for students' progress and performance. IT can be used in a traditional classroom setting with a CAI focus or in the field as web-based training.

It is better to integrate CMI into teaching and learning so that a lesson planner provides due dates, points and checks list for completion. It refers to programmes that evaluate and diagnose students' needs, guide them through the next step in their learning, and record their progress. It tracks student progress and directs instruction. The use of a computer to manage the learning process, including testing and record keeping. The students can learn with computer through self paced learning. The learning objectives are designed and the activities are framed in the computer so that the students can learn their topic in itself.

Physics Teaching

Physics teaching develops the ability to think critically and independently. The students can easily learn the physics only when they understand the nature and natural phenomenon. Physics plays a unique educational role. In secondary and senior secondary schools, it is recognized that other scientific disciplines more and more require knowledge of physics. And the students do not know the mathematical language in physics so that there are major obstacles in the way of communicating the meaning of physics to the students' community.

Integration of Computer Managed Instruction into Teaching and Learning

When we interact with the students of physics at XII standard, they felt that the topics in physics are too difficult to understand. After the completion of the portion, a slip test is

conducted among them. In our senior secondary schools, the higher secondary physics teachers are supposed to finish theory part as well as the practical part within the current year i.e., within six months. In order to finish their portion within the stipulated period, they are supposed to teach the lessons fast. They are conducting practical as soon as they finish their theory part. The physics teachers' work depends fully on the completion of the syllabus. There is no interaction between the teacher and the student. For this reason, they first of all have to diagnose the subject fully in which they have to find out the hard spot. Normally the difficult area is the digital electronics in XII standard physics subject. An achievement test should be constructed in this difficult area. This is the problem area for the students of physics for XII standard.

The software is comprised of the learning objectives such as tutorial mode of the unit, drill and practice for that unit etc., demonstration of the experiments for the concept of physics. The self-attendance for the students should be constructed in the software itself. Slip-test and evaluation part, assessment of the learners' performance should be constructed in this software also. Suppose a student sits in front of the system, he is supposed to register his name, class, subject and gender and then he can enter into the software. Likewise, the software should be constructed, validated and installed in a computer. The students can view the model question paper for this unit and they go through the content material in the software and they get reinforcement for the teaching and learning. The slow learners and fast learners can be identified with the help of the assessment of learners' performance. The slow learners should be given remedial measures or feedback for the lesson in the software itself. The final examination should be conducted for each student and the results of the students can be viewed in the software. Then the students must view the websites and search engines for the content 'Digital Electronics'. And also

they must witness the virtual classrooms in the websites for the mastery level of the learning in the above said unit. In order to teach the hard spot in the unit 'Digital Electronics', Computer Managed Instruction(CMI) should be integrated into teaching and learning.

Conclusion

Computer Managed Instruction (CMI) should be integrated in physics education so that the students of physics can be benefited a lot by

equipping necessary skills through mastery learning in the unit 'Digital Electronics'. By means of it, they get self-paced learning for the competency.CMI offers individualized learning in which there is effective learning process in the classroom. Physics, being an essential part of the educational system must be taught through CMI which develops creativity among the students and the society in this era.

DTERT, Chennai

E-COLLECTIONS FOR INDIVIDUAL KNOWLEDGE SPHERE IN THE ELEMENTARY EDUCATION

Dr. P. Sekar* and S. Annamalai

*Principal, **Librarian

Sri Renugambal College of Education, Polur, T.V. Malai District

The technological approach to journaling can take many forms and includes, for example, e-mail, web logs, and electronic discussion boards. Cyboran (2005) also noted that "using technology can make reflective journaling much easier" With the advent of personal computers, desktop publishing software and laser printers in the late eighties revolutionized the printing to a newer phase. The growth of Information Resources in this electronic age is enormous and the demand for the access of such resources also has been increased by the pupil (Shanmuga Prabha, 2002).

The technological approach to journaling can take many forms and includes, for example, e-mail, web logs, and electronic discussion boards. Cyboran (2005) also noted that "using technology can make reflective journaling much easier" This paper provides an outline of e-books, e-journals and the trends.

Features of E-Collections

Pupil need to bring what they are learning into conscious awareness. They learn more effectively through a process of inquiring, expression, and opinion from others that permits a deeper understanding to emerge from these otherwise everyday activities. The major key features of e-collection are the following:

- Easy to modify, operate and combine
- More compact than paper
- Easily copied, stored and propagation
- Use the same e-resources at the same time at any place by any pupil.
- Prompt delivery
- Add value to services
- Communication with remote users
- Spawn happiness among users

- E-collection increases the R and D successfully and powerfully.
- The e-collection save users' time

Nature of Resources Available in the E-Collections:

The paper mainly focuses the availability of two types of e-collections: e-books and e-journals

E-Books

Technologically related methods are particularly attractive to both instructors and students because they naturally provide themselves to allowing learners to ask individualized questions and seek specific feedback about coursework or their understanding of core concepts (Longhurst and Sandage, 2004). E-books also contain audio, video and dynamic hyperlinks. E-books can be delivered by email as an attachment or downloaded from internet.

Utility of E-books

Digital information is a valuable strategy for checking students' understanding of core concepts, promoting reflection on the connections between theory and practice, enhancing insight, and promoting critical thinking (Andrusyszyn and Davie, 1997; Halva-Neubauer, 1995). Watkins and Marsick (1993) stated that "people need to bring what they are learning into conscious awareness. They learn more effectively through a process of questioning, reflection, and feedback from others that permits a deeper understanding to emerge from these otherwise everyday activities" For Example, from the "Microsoft Encarta " the files from moving media in the science and technology portion, the Elliptical orbit of solar system was seen naturally. Likewise, in the same media, Lincoln

Memorial in the U.S was viewed in to 340° angles to watch all sides of the memorial by just to rotate the image (hold down the mouse and drag in any direction.)

E-books are powerful additions to knowledge societies, the faculty, students, scholars, industries and other knowledge workers can make use e-books due to the following facts:

- E-books facilitate easy understanding of content in 3-D mode.
- E-books add the value of teachers, learners and researchers
- E-books can be updated, stored and downloaded instantly at any place
- E-books contain the latest and most updated information
- Due to hyper linking facilities users can communicate directly with authors.
- Due to portability, e-books can be taken away with on portable computer.
- E-books provide facility to hold and turn pages easily
- Physically challenged users can hear audible book
- Buying e-books the overhead charges are totally ruled out.
- E-books are interactive with background music and animation.
- E-books save library space and expenditure on binding.

How and Where to Find E-Books?

E-books are sold from e-publishers and online-bookseller sites. They are delivered either by download or e-mail file attachment. Many print publishers often price their downloadable e-books at the hard cover price; electronic publishers often use paper back prices. Following points are to be kept in mind by the libraries:

- Continuous updating
- Developing strong professional teams in their respective libraries.

- Arranging continuous education and training programmes for users and staff.
- Accept the challenges being imposed due to advancement of technology.
- Arrange lectures / training programmes from time to time.

How to Formulate E-Collection Strategy

On the basis of understanding and literature review, the following e-collections strategy should be administered. It is necessary for the librarians in the science and technology to make strategic guidelines for the development of e-collections..:

- ✧ Ensure the quality in electronic collections
- ✧ Content can be copied course wise or publications wise
- ✧ Cost benefit
- ✧ Ability and need for investing in electronic content formation.
- ✧ Guidelines for developing group effort for content creation.
- ✧ Taking on a formal role to teach information skills and information literacy.
- ✧ Resources on behalf of users.
- ✧ Dealing on development projects to enhance the services

Conclusion

As information is increasingly produced in digital artefact form, paper collections will slowly fall into disuse and large portions of such collections will be associated with locations, libraries will continue to be associated with building. Although physical locations of books, journals and other material will no longer consume valuable space in these buildings, we can envision the need for work spaces where users consult the computer work stations. Therefore, the teacher should know the usage of digital libraries for the forthcoming generation to meet the challenges and goals.

EFFECTIVENESS OF ICT IN ELEMENTARY MATHEMATICS

K. Thiyagu* and M.Dhanasekaran

*Lecturer, J.J.College of Education, Pudukkottai

**Lecturer, DIET, Pudukkottai

Math is like love - a simple idea but it can get complicated - R. Drabek

A new teacher, interested in the possibilities afforded by emerging technology, made no headway until she had a computer of her own at home. Personal access is a major advantage in allowing teachers the time and space to make good progress in the use of technology. We need inspiration to see possibilities before one can start to make progress along what can at times be a frustrating road. Happily, these days access is relatively easy and there are inspirational leaders and resources to help us along the way. Mathematics is the mother of all sciences. The world cannot move an inch without mathematics. Every businessman, accountant, engineer, mechanic, farmer, scientist, shopkeeper, and even a street hawker require knowledge of mathematics in the day-to-day life.

Need for the Study

Every teacher has experience the rise in pupils interest that comes with the introduction of a real problem situation one with which the pupil is genuinely concerned. Proper motivation of learning is essential in any set of educational experiences. The outcomes of such a vital experience are of different kinds, including certain knowledge, skills, abilities, understanding, attitudes, interests, appreciation and way of living. Learning goes on as the individual sees and feels the significance to his own felt needs of what he does. Pupil's purpose is the prime move to carry out learning experience. The England and Wales National Curriculum for mathematics states: 'pupils should be given opportunities, where appropriate, to develop and apply their information technology (IT) capability in their study of mathematics. So the investigator has selected the topic 'Effectiveness of ICT in Elementary mathematics.'

Objectives of the Study

- ✧ To Understand and discuss thoughtfully the contribution that ICT (including calculators and computer) can be used for learning.
- ✧ To Provide an appropriate environment (including tasks) that will enable pupils to learn from feedback, observe patterns, see connections, work with dynamic images, explore data and "teach" about the computer.
- ✧ To Understand and discuss thoughtfully the contribution that ICT (including calculators and computer) can make to teaching mathematics.
- ✧ To Develop our knowledge of particular software
- ✧ To enhance our mathematics teaching, including getting access to available resources and support for using ICT in the maths classroom.

General features of working mathematics with computers

Learning from Feedback

The computer often provides fast and reliable feedback, which is non-judgmental and impartial. This can encourage student to make their own conjectures and to test out and modify their ideas.

Observing Patterns

The speed of computers and calculators enables students to produce many examples when exploring mathematical problems. This supports their observation of patterns and the making and justifying of generalizations.

Seeing Connections

The computer enables formulate, tables of numbers and graphs to be linked readily, changing one representation and seeing

changes in the others and helps students to understand the connections between them.

Working with Dynamic images

Students can use computers to manipulate diagrams dynamically. This encourages them to visualize the geometry to generate their own mental images.

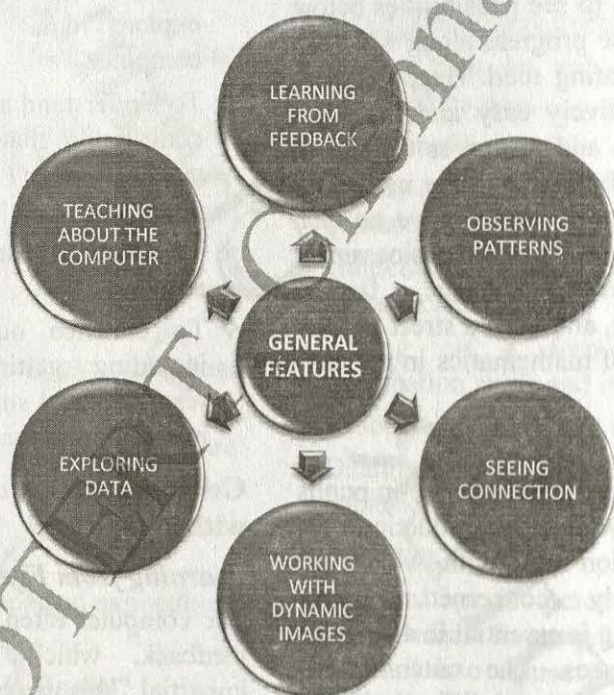
Exploring Data

Computers enable students to work with real data, which can be represented in a variety of

ways. This supports interpretation and analysis.

Teaching the Computer

When students design an algorithm to make a computer achieve a particular result, they are compelled to express their commands unambiguously and in the correct order: they make their thinking explicit as they refine their ideas.



ICT Resources for Mathematics

The following are some of the Resources for mathematics

1. Calculators

Modern electronic calculators are nowhere near as 'transparent' with regard to their functioning, and therefore do not offer much imagistic support. Numbers are entered from right to left, as when written down, which acts to move the digit across each place. It is an interesting and open question whether this

relative absence of associated imagery with a calculator is potential weakness or a potential strength with regard to using such devices to help gain either numerical fluency or understanding.

2. Graphic Calculators

A graphic calculator is a calculator with a big screen that enables the user to draw graphs, zoom in and out, and experiment. Many come with options of function, polar, or parametric graphs. It is also possible to tabulate functions

and to explore sequences. Once you get started, much more becomes possible.

The Casio 7000g was one of the earliest graphic calculators. Then Texas instruments brought out the TI-81, which many people found easier to use because it employed a system of menus. The Casio equivalent was the 7700g. Both of these had a friendly starting section in the manual.

3. Spreadsheets

A spreadsheet is an electronic table that offers an algebraic environment in an accessible format. Most computers these days come with a spreadsheet built in. the spreadsheet Excel is widely available in schools and colleges, both on Mac and PC computers, and it is an industry standard one.

4. Dynamic Geometry

Dynamic geometry software has points, lines and circles as basic objects, and allows constructions such as the mid-point between two points. There are three main versions available for PCs and Macs and one for Archimedes computers at the time of writing. We can obtain a trial copy of our chosen dynamic geometry package either by contracting the suppliers or by downloading from the Internet.

5. Logo

Logo is 'the name for a philosophy of education and for a continuously evolving family of computer languages that aid its realization'. Paper has written an inspiring account of the thinking behind logo. As there are various implementations available, one needs to be aware of variations. The fundamental idea is that the pupil is instructing a turtle to move and construct geometric objects, or trajectories.

6. Internet

It is a collection of network. Now-a-days internet is very essential for learning

mathematics. We find all the information what ever we want from the internet. It is very much needed for educational purposes.

Developing the Learning Activities

- The learning activities should be planned on the basis of the previous knowledge of the learners.
- The learning activities should be based on the need of the learner.
- The learning activities should be based on the terminal behaviors.
- The learning activities should provide for individual differences.
- The activities should provide for freedom and flexibility in the learning process.
- The learning activities should be of different types using different media and methodology.
- The learning activities should provide maximum interaction among the students and the teacher.
- The learning activities should provide the learner with enough knowledge of the progress.
- The methodology used in learning activities should promote imagination, divergent thinking and creative innovative behaviors on the part of the learners.

Grasping basic maths concepts and skills is essential, not only for an appreciation of the subjects. If we teach mathematics with the use of ICT, students can learn mathematics with full involvement. ICT is changing rapidly. Although there is much potential for improved learning, there is also the possibility of wasting a great deal of time and resources. When using ICT in the classroom, it is worth remembering that some pupils will know more and amongst pupils there may be wide ranges of fluency and comfort with ICT, and access to machines.

INTEGRATION OF TECHNOLOGIES IN CLASS ROOM PRACTICES

Mrs. S. Uma Maheswari

SGT, Government Hr Sec School (Boys), Perundurai

In the present day world education is a powerful force in bringing about rapid changes in the mind of young children. Education has ceased to be no longer a Teacher-centered process. Now it has become the Child-centered process. It had also changed from the Subject-centered idea to Activity-centered idea.

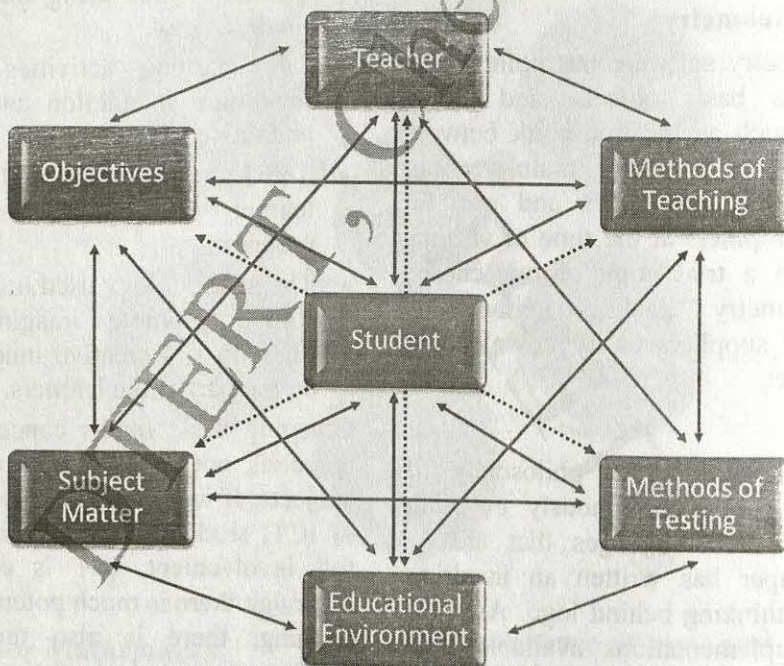
The Process of Education

The process of education is mainly a bipolar process taught. However, there are other

factors that enter into the educational techniques, subject-matter, the teaching methods, the educational environment and the testing methods which have mutual influences too.

Pictorial Diagram

Hence it may be diagrammatically represented as given in the figure. The figure shows the techniques we must follow in class rooms.



Teaching is an art

Teaching is an art. Therefore, we the teachers are the live models to young children. 'Experience is the mother of Learning', so with our own experience, we should use many techniques in class rooms. Wherever we teach, each student gets a learning experiences in a formal way.

The Concept of Class Room

"Every student's fate is decided in the classroom" so that the class room should provide an interesting learning field with the use of effective teaching techniques. Whenever we enter into the class, we should equip our minds, so that we are able to

implement the subject matter, methods, and evaluating techniques.

Needs of Children

As William Wordsworth says, "Children is the father of man." The present generation possesses good mental calibre and quickening of mental activities. Every student is unique in own way. Moreover the curriculum of primary education naturally differs from that of secondary and higher stages of education because of so many criteria as the objectives of education, the age of children the developmental level of children.

Different Aspects of Learning Techniques

- Use different approaches while teaching each lesson.
- Teach in a formal way and create interest by using some illustrations, pictures and models.
- The teaching should be child-centered and based on activities.
- Teaching should be in play way method and encouragement should also be given.
- Group activity is a desirable one.
- Learning by doing is an excellent technique to be followed at the early stage of learning.
- Some interesting programmes like seminar, workshop, brain storming should be conducted often.
- Remedial teaching and remedial measures should be promoted.
- Practical knowledge is needed in certain aspects.
- Self-learning must be encouraged.
- Programmed learning also should be encouraged.

Action Experiences

Some class room activities should be prepared and activated in the class room are as follows:

- Quiz programmes

- Album preparation
- Models preparation
- Flow chart preparation
- Flash cards preparation
- Time line, Time chart preparation
- Date and events
- Pictures collection
- Riddles
- Matching
- Classifications
- Locating
- Analysis
- Generalization
- Mind-mapping
- Summarizing

Methods to be adopted in Class Room

- Group discussion method
- Story-telling method
- Dramatization
- Enquiry
- Discussion
- Problem solving
- Field Trip
- Topical method
- Biographical method
- Historical method
- Source method
- Participatory method
- Discovery method
- Comparative method
- Lecture method
- Deductive method
- Inductive method
- Practical method
- Descriptive method
- Assignment method
- Self-learning method
- Laboratory method

There is a proverb, "Variety is the spice of life". So we must practice and learn to use different methods in teaching. Then only, we

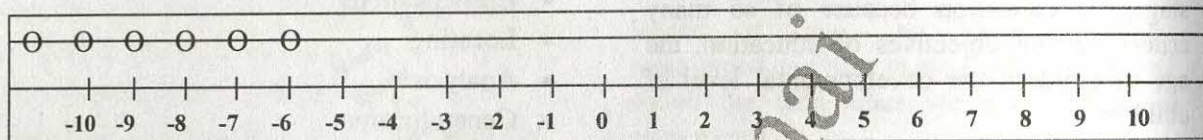
can get the expected result from our students.

To make it clear, an example from VI Std Mathematics is given. The heading is 'Integers' Integers consists of Positive Numbers, Negative Numbers and Zero. In

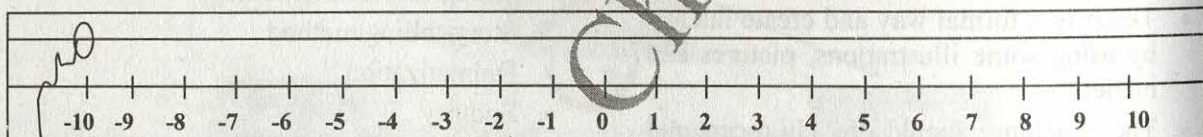
order to teach this item effectively, Number Line chart plus & minus numbers are drawn systematically in a wooden bar. A string is fixed at both ends. Some beads are inserted in the string.

Number Line Chart for Integer

1. Ascending Order, Descending Order Teaching Models, Beads



2. Addition, Subtraction of Integer Teaching Models - Keychain



By using this teaching model, simple sums can be taught, and also ascending and descending orders clearly. When we practice this method in class and it is really useful and easier. It helps even a slow learner to learn easily.

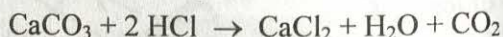
This instrument is given in the hand of each children and they found it very interesting to learn the activity. In the same way, when another instrument was used instead of using beads in the string a keychain is used, students are motivated.

The following techniques are integrated.

- Peer group study
- Individual student participating
- Self-explanation
- Creativity

To say frankly, the students enjoyed teaching and the expected result was gained. Example: From VIII Std. science topic is 'Preparation of

carbon-di-oxide in Lab. When Calcium Carbonate reacts with dilute hydrochloric acid, carbon-di-oxide is produced. i.e.,



When this reaction was done each and every student observed the class very interestingly and took absolute involvement.

Just like the same, Hare's apparatus was used. Students themselves took part in collection of sugar, salt solution etc. Students took their own lead in this activity. Learning process was a very interested one.

In the case of album collection also, they started doing current scientific items. Only tips were given, but students understood ideas, and did the work very interestingly.

When with Moon lesson was taught from Geography using so many materials like Puppet. Moon, star with a suitable song.

So many things were collected from science library materials, Kalaikathir Science Articles (Coimbatore Edition). Regarding botany subject, small creatures like Arthropod centipede, millipede, beetle, bug and crab are preserved by students very enthusiastically.

Regarding Social Science it is suggested to follow group study, individual study, storytelling method, even Mime show also with Flash Cards and Dummy Models.

Regarding the Teaching techniques, Mind Mapping and summarizing are very modern and affective. These techniques are very useful and they helped to create students creativity.

As far as the above mentioned techniques, students have become very responsible and they created cooperation among themselves. The great educationalist 'Cook and Cook' say in this regard.

"All school faculties give thought to ways and means of improving the cooperation of school and homes."

So, by using these modern trends, education is to be considered as a common endeavour of the family and school. The home should heartily cooperate with the school in the educative process.

Conclusion

To conclude, the idea is that these above mentioned techniques are very helpful and they are like most powerful weapon to overcome ignorance, illiteracy and superstition. If properly used and practised students will become unique in all their ways. And this will herald blossoming of mutual relationship between teachers and students.

DTERT, Chennai

INTELLIGENCE OF SCHOOL STUDENTS THROUGH EDUCATIONAL TECHNOLOGIES

S. Pressila Daissy

Lecturer in English, SRM School of Teacher Education and Research,
SRM University, Kattankulathur, Chennai

The population is increasing in geometrical proportion and new frontiers of knowledge are being opened up almost daily. The explosions of population and knowledge have raised the serious question of both quantity and quality of education. Educationalists are of the opinion that the educational problems relating to quantity and quality could be tackled by the development of an educational technology. Though there are several technologies, all are not put in place to improve the abilities of the students. Here various abilities of a student and followed by the latest technologies. Finally in this study, technologies to the kinds of intelligence to develop various skills of a student are highlighted. If it is possible to accelerate the skills of an individual, then any student can achieve high in his/her academic performance.

Multiple intelligences

The various multiple intelligence or abilities are verbal intelligence, logical-mathematical intelligence, spatial intelligence, kinesthetic intelligence, musical intelligence, interpersonal intelligence and intra-personal intelligence.

Advanced Technologies

Newer advances in educational technology are rendering earlier educational technologies obsolete. Here are some new technologies that can be used in learning process.

Educational television

Television being a versatile and dynamic communication medium is being utilized increasingly today to meet the growing demand for education and to improve and enrich instruction. Educational television is the most visible and used instructional media.

Video

This is one of the most successful medium used extensively in education and training. Interactive video allows users to participate in a simulated conversation on the TV screen. Videotex technology involves the transmission of display text and graphics and their reception on an adopted television set.

Teleconferencing

International contacts by human beings are greatly enhanced by network based communication facilities.

E-mail

Non-interactive communication of text, images, audio and video files between sender and receiver through telecommunication links.

Computer

The most significant of all the new products of the technological revolution is the computer. Various size and types of files can be stored and viewed by the users. All educational applications can be executed in computer. Various reports can be generated.

Artificial Intelligence

This is the study of how to make computers do things at which, at the moment, people are better. Computers make decision based on the situation using AI technology.

Local Area Network (LAN)

Used to connect various computers in a network to share their data.

Computer assisted instruction (CAI)

It is developed, based on the principles of programmed learning. It is an interaction between the student, a computer controlled display and a response-entry device for the purpose of achieving educational outcomes.

CD-ROM

It is an Optical data storage device. It is used to keep educational resources safely and permanently. Data can be viewed whenever we need.

Ways to upgrade the intelligences

Upgrading verbal intelligence

The computer encourages students to revise and rewrite compositions and thus develop greater fluency and a more effective style. Recopying by hand or typewriter often inhibits ongoing correction and revision, but the computer facilitates these processes and gives students a greater sense of control over their writing. When students see their work in professional-looking formats they become more interested in studying and mastering the mechanics that will give it final polish. Some of the most popular word processing programmes include Microsoft Word, Word Perfect, and Ami Pro for Windows.

Computer programmes are making it possible to combine information in different forms, including words, images, and sounds. Students can store, sort, and cross-reference information, notes, bibliographies, and create multimedia reports to make an adventure of learning. Teachers are able to develop their own courseware, create databases linking documents, present preprogrammed slide presentations from videodiscs, and enrich their courses with a wealth of the technology described in the chapters on each of the other intelligences. Electronic technology is having an enormous impact on the development of speaking skills, as children find it possible to communicate with new friends around the country and world. Just as the computer has enhanced writing skills, so audiotape-recording, video-taping, and video-conferencing are having positive effects on oral fluency. When students observe and hear themselves speaking, they learn to express themselves effectively. Make use of the above said technological resources the students can improve their verbal intelligence.

Upgrading logical-mathematical intelligence

Logical-Mathematical intelligence can be exercised and developed through many challenging and innovative kinds of multimedia technology- Students of every ability level can learn effectively through interesting software programmes that offer immediate feedback and go far beyond drill and practice and "workbooks on computers." Many of them offer challenging opportunities to exercise and develop higher order thinking skills that are essential in problem-solving. Following are a few examples of the many outstanding programmes that are now available.

Edmark's "Millie's Mathhouse" is a delightful and successful computer program that introduces number and math concepts to preschool and early elementary children. It is alive with color, sounds, and graphics and works with a touch screen. Children are introduced to essential math concepts as they build animated bugs, operate a cookie machine, count wiggling critters, and make patterns with talking animals and shapes. As they explore and discover, children learn about numbers, shapes, sizes, patterns, and problem-solving.

For primary students, IBM's "Math and More" programmes introduce students to patterns and relationships, geometry, probability, and statistics through highly motivating video, manipulative, and printed materials.

Increasing numbers of multimedia software programmes are focused on developing the critical and creative thinking skills of students. IBM's "Modern Solutions" and "Wrinklers" (combination of thinking and writing) offer challenging projects that utilize logic, analysis, synthesis, and evaluation in creating and problem-solving. Seymour Papert's "Lego Logo" program also offers an opportunity for students to develop the skills of analysis and logic as they learn to use a new computer programming language and apply it to controlling the movement of Lego "machines"

that they create. Similarly many software's helps the student to learn more easily and interestingly.

Upgrading spatial-visual intelligence

Today's students have grown up watching television and are highly oriented to visual learning. Slides, overhead transparencies, filmstrips, and movies are important adjuncts to their learning. Copy-machines and computer- printers are also essential support systems for any kind of academic work. When interactive systems are also part of the learning process, students move from passive observers to active thinkers.

Other technologies includes Geographic Television (GTV), the interactive videodisc (IVD), compact disc-read only memory (CD-ROM), digital video interactive (DVI), compact disc interactive (CDI), and artificial intelligence motivate the students to learn easily.

Upgrading kinesthetic intelligence

Learning through technology is a highly active and interactive process when used appropriately. Computers rely mostly on eye-hand coordination for their operation--keyboarding and the use of the mouse or touch-screen. This kinesthetic activity reinforces learning and makes the student an active participant in the learning process.

Programmes such as "Lego Logo" offer ways to connect the computer to external manipulatives, such as Lego blocks with gears, wheels, and motors. Starting with these, students can invent innumerable kinds of machines to control through computer programmes they develop themselves.

Some computer simulations enable students to experience events seldom encountered in everyday life. Multi-media technology also involves much actual physical activity as information is gathered from databanks, books, and photos, as new information is generated by camcorders, and finally as all of it is pieced together electronically through hypermedia programmes such as HyperCard

or LinkWay. Needless to say, the production of filmed plays or dance programmes also involves and exercises kinesthetic intelligence.

At a time when technology makes it very easy to become a passive observer or only a recipient of information, it is not only possible but also essential for students to become actively engaged in learning, as these foregoing examples demonstrate.

Upgrading musical intelligence

Upgrading of musical intelligence can be enhanced by computer technology. The Musical Instrument Digital Interface, or MIDI, makes it possible to compose for and orchestrate many different instruments through the computer. Pyware's "Music Writer" and Activision's "Music Studio" are examples of software programmes that also make such magic possible.

Memulay's "Musicland" program has been used successfully with children as young as three. It enables children to compose music immediately by manipulating notes and graphic representations of musical concepts on the computer. A student can draw a shape on the staff on the computer screen, and see it translated into musical notation. The student then colors in the notes, with different colors for different instruments, and the computer plays back the composition in synthesized sounds.

Upgrading intra-personal intelligence

The development of intrapersonal intelligence can be facilitated through the use of technology to explore and expand the human mind. Technology offers the means to pursue a line of thought in great depth as well as to have random access to divergent ideas. The opportunity for students to make such choices is at the heart of giving them control over their own learning and intellectual development.

Although the most common use of technology in the classroom today is still for drill and practice, many teachers are finding successful applications of computer technology to develop higher-order thinking skills.

Classrooms that use computer technology in this way become centers for inquiry. Students learn not only to use databases, but to create their own. Technology can be used to explore and expand intelligence, as students build "mental models" with which they can visualize connections between ideas on any topic.

Individual student learning or personal growth plans, developed collaboratively by student and teacher, encourage the development of intrapersonal intelligence. They can be well facilitated through computer programmes that make possible on-going modifications or revisions, as well as the recording of accomplishments in the form of electronic or multimedia portfolios of student work.

Upgrading inter-personal intelligence

Students frequently use technology alone, and for purposes such as remediation or personal exploration, this is often preferable. Current research indicates, however, that when students use computers in pairs or small groups, comprehension and learning are facilitated and accelerated. Positive learning experiences can result as students share discoveries, support each other in solving problems, and work collaboratively on projects. In today's workplace, such skills are increasingly important.

Interpersonal skills can be enhanced through small technology groups in the classroom, as well as through computer networking with students in other classrooms, schools, or countries.

Distance Learning facilitates communication between teachers and students in different parts of the community, state, or world. This interactive technology develops expanded and enhanced interpersonal skills and breaks through cultural barriers as students and teachers learn to communicate in new ways appropriate to this medium.

Conclusion

There are several educational technologies exist to improve the intelligence of the students, even then the teacher plays a major role in this context. It is the responsibilities of teacher to encourage the students to make use of the available technological resources. Since each technology has its own advantages and limitations, select the technological resources based on the factors like availability, accessibility, acceptability, economic and validity. *Though technology enhances the intelligence of many people, quality in education can only be given by the teachers.* Hence the new technologies are not the replacement of teachers; it helps to make the teaching learning process a thorough success.

IMPACT OF LCD PRESENTATION TO TEACH SCIENCE AND MATHS FOR TEACHER TRAINEES

K. Parvathi* and S. Sridevi**

Lecturers, Excel College of Education, Komarapalayam

Information and Communication Technology refers to technologies that are used for accessing, gathering, and communicating the information. Technology has to be integrated in every subject in component of every institutional activity. Use of technologies has been emphasized in both the National policy of Education -1986, And revised NPE1992 to improve both quality and quantity in education.

Integration of technology with pedagogy improves the

- efficiency
- effectiveness and
- quality of teaching and learning process.

Core competencies:

- content and pedagogy
- collaboration and net working
- social issues and
- Technical issues are the core competencies which are necessary for the successful use of technologies as a tool for teaching and learning.

Main Objectives of the Study

- To find out the achievements of students in learning science through LCD and conventional teaching method.
- To find out the gender difference in using integration of technology.
- To find out the learning ability of students below age group of 19 years and above 19 years.
- To find out the students achievement in science and maths using LCD.

Hypothesis of the Present Study

- ✧ Students achievement differ in learning science using LCD and conventional method.

- ✧ Achievement of boys and girls differ in learning science through LCD.
- ✧ Learning ability differs in age group of students below 19 years and above 19 years.
- ✧ Learning ability differs in science and maths using LCD.

Experimental Design

The investigator has selected 40 teacher trainees from SRET teacher training institute at Komarapalayam. They were divided into two groups as control group and experimental group. The control groups were taught with conventional method and teaching experimental group were taught through LCD. Before starting the experiment the investigator is sure that the two groups selected were equated with regard to major controlling variables. Investigator has conducted pre test and post test and random sampling technique was applied to collect the sample. The collected data were analyzed statistically to find out mean, SD, t values.

Findings of the Present Study

From this experiment the investigator found that

1. Teaching and learning through LCD produces higher academic achievement in science than teaching through conventional method.
2. Academic achievements of boys do not differ from girls in science using LCD.
3. Teaching and learning through LCD in the age group of above 19 years shows higher Academic achievement than the trainees of below 19 years.
4. Academic achievement is higher in science than maths in teacher trainees using LCD.

Table-1

Test of significant difference between the achievement scores of experimental group and control group

Group	N	Mean	SD	't'	Level of significance
Experimental	20	13.7	2.147	7.159	0.05
Control	20	10.5	1.857		

It is observed that experimental one show more mean score than control. Since the calculated t value is greater, it is found that

students achievement is more in experimental than control groups.

Table-2

Test of significant difference between the achievement of scores of boys and girls in learning science through LCD.

Group	N	Mean	SD	't'	Level of significance
Boys	20	13.9	1.92	0.666	0.05
Girls	20	13.2	2.52		

It is Observed that boys mean score is 13.9 and Girls mean score is 13.2 .The calculated t value is 0.666 less than the table value and

hence no difference between the achievement scores of boys and girls.

Table-3

Test of significant difference in achievements score of age group of students below 19 years and above 19 years in learning science using LCD

Group	N	Mean	SD	't'	Level of significance
Students age of above 19 years	20	14.23	1.887	2.226	0.05
Students age of below 19 years	20	12.71	2.249		

It is observed that mean score of students above 19 years is 14.23 since the calculated 't' value is 2.226 greater than the table value,

there is significant difference in the achievement scores of students age group below 19 years and above 19 years.

Table-4

Test of Significant difference between teaching of science and mathematics using LCD

Group	N	Mean	SD	't'	Level of significance
Science	20	13.7	2.147	4.717	0.05
Mathematics	20	10.7	1.897		

It is observed that achievement of mean score in science is 13.7 higher than the mean score of Mathematics. The calculated value is 4.717 greater than the table value and hence there is a significance difference in teaching of Science and Mathematics.

Investigator concluded that there is a significance difference between teaching methods and age groups but there exists no difference between boys and girls learning through LCD. From this experiment the investigator recommended the following:

- Students must be taught with innovative teaching aids like LCD to teach science and Maths.
- Special efforts to be taken to teach the students of adolescence stage for their better academic achievements.

Conclusion

Science and Maths come under the same branch i.e. Science. Maths needs more drill practice after LCD teaching for better achievement.

DTERT, Chennai

MULTIMEDIA BASED LEARNING APPROACH WITH SPECIAL REFERENCE TO V-STANDARD STUDENTS

A. Tamilchelvi

Lecturer, DIET, Namakkal

The problem that plays every teacher in every subject at every grade level of educational system is how to teach one lesson to a class that contains students with different skills and learning rates. With the increased use of computers in all aspects in our social life, it is high time for the practicing teachers to orient themselves towards the teaching through computers.

Computer by itself is a powerful single medium that incorporates visual, audio, and print media. Computer, like a human teacher presents the lessons to the learners in a systematic way. In addition, the computer assisted instruction ensures cent percent interaction by the students and therefore assures the mastery level of achievement. Multimedia-based learning package provide for considerable visualizations of objects and processes which are essential for formulation of accurate concepts. What impact a visual presentation can do, any amount of verbal exposition cannot do. Moreover, in a fast developing world, where knowledge explosion is taking place in every sphere, it is unreasonable to expect that the spoken or written words alone could convey the volume of relevant information to the learners.

Multimedia-based learning package provide unique experience to the learners in the presentation of the content. These multimedia packages can penetrate more deeply into human character with an immediate excitement than any other single medium. The dual effect of audio and video strengthens and enriches the understanding and expedites the mastery of the concept. Realising the importance of multimedia, the National Policy of Education (1986) emphasizes that the modern educational technology, in general, should reach out the most distant areas and most depressed sections of beneficiaries.

The present study is an attempt to measure the effectiveness of multimedia based learning package and also to assess their advantage over the traditional lecture method.

Objectives of the study

1. To develop multimedia based learning package for English, Mathematics and Science for Std V.
2. To assess the achievement of the control group students in Std V when the subjects are taught through traditional lecture method.
3. To find out the achievement level of the experimental group of students in Std V when the subjects are taught through multimedia based learning package.

Hypotheses of the study

1. There exists no significant difference the pre-test mean scores of the control group and the experimental group of V Std students in English.
2. There exists no significant difference in the pre-test mean scores of the control group and the experimental group of V Std students in Mathematics.
3. There exists no significant difference in the Pretest mean scores of the control group and the experimental group of V Std students in Science.
4. There exists significant difference between the posttest mean scores of the control group and the experimental group of V Std students in English.
5. There exists significant difference between the posttest mean scores of the control group and the experimental group of V Std students in Mathematics.
6. There exists significant difference between the posttest mean scores of the

control group and the experimental group of V Std students in Science.

Methodology

The various steps followed in the methodology of this study are the selection of multimedia based learning packages for the subjects English, Mathematics and Science, construction of tools, sampling technique, design of the study, administration of tool for pretest and posttest and employing appropriate statistical techniques for arriving at scientific conclusions.

Development of Modules

Modules were developed for the three subjects of Std V. The modules are developed by the investigator on the basis of the guidelines given by the experts. Each of the selected units was divided into three to four conceptual sub-units. Each sub-unit constituted the subject content for development of one module. Each module was developed in a self-contained and auto-instructional manner.

Development of multimedia based learning package

The method of developing the Multimedia based learning package or otherwise the method of teaching through computer involves 7 important stage as follows:

1. **Tutorial** : For the first time the facts are presented to the students. Primary focus is on student's acquisition of facts and concepts.
2. **Drill & Practice** : Reinforcing previously acquired facts and concepts, permits practice, gain familiarity, competence.
3. **Dialogue** : This provides disciplined review of material with learner in command. Experimental stage of development.
4. **Problem-Solving** : Student's problem-solving environment is enriched by general purpose links, packages, etc.
5. **Simulation** : offers simulation models to create environment for study this experience.

6. **Games**: Merely simulation in spirit of compilation.

7. **Inquiry** : The understanding of the student on the facts and concepts introduced to him will be tested by subjective and objective type of questions. Marks will be awarded to each question and thereby one can estimate the intake of the students.

The investigator selected a multimedia based learning package by applying the tutorial mode in order to improve the effectiveness of teaching the subjects English, Mathematics and Science through computers.

Construction of Tool

To measure the performance of the students before and after the experiment, an achievement test was constructed by the investigator on the basis of item analysis. The reliability of the achievement test was followed by Test-Retest method for establishing reliability.

Sample Design

For the purpose of this investigation, 35 students of V std from PUMS, Sultanpet, Velur were selected. Out of the 35 students 30 students were selected as control group and 5 students were selected as experimental group. Selection of students were based on Random Sampling technique.

The control group was taught through traditional method while the experimental group was taught through multimedia based computer learning package.

Sample of the Study

Gender	Control Group	Experimental Group
Boys	15	3
Girls	15	2

Data collection

A pre-test was conducted before the experiment and post-test was conducted at the end of the experiment. The same test tool was used before and after the experiment.

Scoring procedure

The achievement test consisted of 50 objective type questions for all the three subjects. The total score of the test is 100. Each correct answer the score is 'two' and for each wrong

answer the score is 'zero'. The data thus obtained were analysed by using appropriate statistical technique such as Mean, Standard Deviation and 't'-test.

Subject	Control group		Experimental group	
	Pre-test	Post-test	Pre-test	Post-test
English	29.53	49.53	30.06	74.80
Mathematics	33.60	50.13	34.80	76.80
Environmental Science	33.06	50.26	34.46	78.40

Findings of the Study

1. There is no significant difference in the pretest mean scores of the control group and the experimental group of V std students in all the three subjects.
2. There exists significant difference between the posttest mean scores of the control group and the experimental group of V std students in English.
3. There exists significant difference between the posttest mean scores of the control group and the experimental group of V std students in Mathematics.
4. There exists significant difference between the posttest mean scores of the control group and the experimental group of V std students in Environmental Science.

Conclusion

Multimedia based learning package to learn the subjects has been proved effective at the primary level. It can be used in enhancing the knowledge, understanding and application of the students in all the subjects. These packages should be developed to help the students to learn at their own pace. Further, the psychological factors such as need, motivation, age, interest, intelligent, etc. could be taken into account while selecting the computer packages. The computer learning packages can be planned, developed, evaluated, and implemented with the help of the team of experts consulting curriculum planners, educational psychologists, computer experts and practicing teachers.

INTEGRATING TECHNOLOGY INTEGRATION INTO CLASSROOM

Dr. Bharathi K. Kumar

Lecturer, SRM School of Teacher, Education and Research,
SRM University, Kattankulathur, Chennai

Technology Integration

Technology Integration means effective use of technology by teachers and students in school and university classrooms.

Technology is used by teachers to instruct in languages, arts, social studies, science, maths and other content areas.

When technology is integrated effectively into classroom practices, learners get empowered to actively participate in their learning. This is called the constructivist approach to learning.

Preparing for the Change

The computer is an innovation of more than ordinary magnitude.

It is generally accepted that the computer is considered as one of the most important technological tool that can be effectively used in imparting education to the learners in a learner-centric environment. However, the effective use of this technology depends on

providing training to the teachers and this in turn, involves a considerable investment of time. Time is a key factor because the process of change takes 3 to 5 years before positive results are realized.

The integration

To improve learning in schools, the technological interface (in this case a computer and its peripherals) should be designed in such a way as to enable a teacher to use it seamlessly with his/her teaching wisdom, experience and voice as well as with other conventional teaching aids such as chalk and blackboard during classroom teaching process.

Paradigm Shift

The effective use of technology can help change the current educational paradigm in the following ways:

OLD PARADIGM	NEW PARADIGM
Teacher-centered instruction	Learner-centered learning
Single-sensory stimulation	Multi-sensory stimulation
Single-path progression	Multi-path progression
Mono media	Multimedia
Isolated work	Collaborative work
Information delivery	Information exchange
Passive, receptive learning	Proactive inquiry-based learning
Factual, knowledge-based	Critical thinking, informed decision making
Reactive response	Proactive planned response
Isolated artificial context	Authentic real-world context

The integration of the technological tool - The handheld computer

The interface comprises of a hand-held computer. The hand-held computer is a cost-

effective proposition as the price is around Rs.10, 000.

Some of the features supported are:

- Internet browsing through a landline or mobile internet interface.

- Email
- Scribble pad / paper
- Notebook
- Calendar
- Calculator
- Conversion Calculator

Constructivism

Constructivism is a crucial component of technology integration. It is a learning process wherein students build their knowledge through collaboration and inquiry based learning. The depth of learning increases and retention of information is longer since the students have a say in what and how they will learn. Technology Integration is not merely putting computers in classrooms. Teachers should be trained to put to effective use the computers, peripherals and software. Teachers must be willing to learn along with the students. The teacher's role as guide is essential. Teachers must take on the roles of motivator, mentor, and co-learner if they want to produce information-literate students.

Interactive teaching through the use of computer would entail

1. Providing a way to allow students to interact with material on the computer including the full breadth of educational software, web sites, and other media. LCD projectors can be connected to the computer for classroom display eliminating the need for television in the classroom. A teacher can record the exact presentation that occurred in the classroom with audio input and post the material for viewing by students. This can be a very effective instructional strategy for students who benefit from repetition, who need to see the material presented again, for students who are absent from school and for struggling learners. This can help transform learning and instruction.
2. Archiving of tutorials and lecture notes for easy access by students.

3. Conducting on-line quizzes and tests to evaluate the student's understanding of a concept. These quizzes and test could be taken by the student at his/her leisure perhaps even at his/her residence. The results could then be immediately displayed to the student. This immediate feedback would help the student immensely and he/she would be able to judge for himself/herself regarding his/her understanding of the concept.
4. Emailing would help the student to interact with the teacher.
5. Development of a class web site.
6. Maintenance of ePortfolio for assessment of a student's educational path. Teachers could also benefit from the use of ePortfolio. It could be used to professionally assess what was accomplished within a school year. Components could include lesson plans, student samples, and personal reflections of various tasks, projects, and/or assignments. Parents also gain a new perspective about their child from portfolios. It allows parents to see accomplishments, strengths, and needs of their child. Portfolios are great tools for assessment. Teachers implement plans based on the use of portfolios.
7. Setting up of Internet based projects. Web based projects would be student-centered based on Web-based curricular units that are interactive and use a variety of Internet resources. The purpose of a Web based project is to use information on the web to support instruction in the classroom. These activities can be constructed as project, problem or inquiry-based learning. The mere paper and pencil assignment could now be transformed into a form that utilizes pictures, video and graphics. These projects could also include diverse elements such as online discussions, data collection, drawing, argument creation, resource sharing, concept mapping and other built-in tools,

as well as links to relevant Web resources. Projects could further be customized by teachers to better meet the needs of their students.

8. Facilitating students to take virtual field trips online where one can actually visit a location take pictures or video footage and create a write-up material which can be used in other applications such as presentation software.
9. Students learning communication skills, including presentation and motivation skills. They learn to communicate with technological media -- text, graphics, and video, sound and categorize and arrange information.
10. Students gaining Visual literacy. This includes knowing how to create, organize, and display print, video, audio, and graphics. Learning how to use color, style,

placement, and font size are important. The students understand the specific content and learn to articulate their knowledge both visually and verbally.

Purchasing Technology for Schools

A school can't simply afford a huge capital investment to buy and install technology. It is for this reason that the technology suggested here requires a very minimum investment on hardware. Free online software could be used to further minimize investment. Thus, rate of obsolescence of hardware and software can be reduced to great extent.

Conclusion

By integrating technology into the classroom, we can make the classroom environment a rich and rewarding one for not only the students but also satisfying experience for the facilitator, the teacher.

EFFECTIVENESS OF ASSIGNMENT STRATEGY IN TEACHING TAMIL AT PRIMARY LEVEL

Dr. U. Prabhakaran and A. Jayaraj

Lecturers, DIET, Aduthurai, Thanjavur Dt.

Ever since the formal system of education came into existence, attempts are being made to improve the quality of education. Many educational policies have suggested and made a lot of recommendations with regard to the introduction of better Curricular and teaching Strategies followed by effective use of evolution Procedures so as to develop learners competencies and skills. Many reaching learning processes in the name of pedagogical orientation. Many educators stress the need for developing cognitive processes in the name of thinking and reasoning through the teaching of school subjects. Compared to the earlier concepts of teaching, where much emphasis was given to "Information giving", in this direction, causative scientific methods such as problem solving approach (Norman Maier 1930, Robert Gagne 1964), critical inquiry approach have been given greater importance in teaching, since they help for greater information processing. Learning is not completed in the classroom teaching. But it continues by referring books in library, getting ideas from elders, group discussions, etc. The information and knowledge gained by the students may be presented in the form of assignments for evolution. Evaluating these Assignments the teacher evaluators could measure the achievement of the learners. Writing assignment helps 5th std. Students in developing thinking and reasoning abilities.

Need for the Study

Through the main objectives any subject is to provide the knowledge and understanding of the subject matter, it is very essential to develop thinking and reasoning skill among the students so as to apply the same in day to day life Situations. As many teachers are caught in the unhealthy trend of completing the portions and preparing the Students for examination, they find little time to develop

and test the thinking these higher order cognitive process is improved, without which their contributions to Society or nation will be very less.

Objectives

The main objectives of the study are:

1. To find out whether there is any signification difference between the pre-test and post -test mean scores of the slow learners in the control group.
2. To assess whether there exists any significant difference between the pre-test and post- test mean scores of the slow learners in the experimental group.
3. To find out whether there is any significant difference between the post-test mean scores of the experimental group and the control group.

Hypotheses of the study

1. There exists no significant difference between the pre-test and post -test mean scores of the slow learners in the control group when the subject is taught through traditional method.
2. There exists significant difference between the post -test mean score of the slow learners in the experimental group.
3. There exits a significant difference between the post-test mean scores of the slow learners in the experimental group.

Methodology

The various steps followed in the methodology of this study are the development of Strategies, construction of research tools, identifying slow learners, sampling technique, design of the study, administration of tool for pre-test and employing and appropriate Statistical techniques for arriving at scientific conclusions.

Identifying slow Learners

For the purpose this investigation, the slow learners were identified on the basis of pre-test scores.

Construction of Tool

To measure the performance of the students before and after experiment, the investigators on the basis of item analysis constructed an achievement test. The content validity of the tool by expert opinion, item validity by item analysis and the reliability of the tool by split half method were established.

Sample Design

For the purpose of this investigation 40 slow learners of V std. Students of T.A. Primary School, Thiruvaidaimaruthur, Thanjavur district were selected as above. Out of the forty slow learners finally selected for study, two groups were formed following systematic random sampling technique. They were placed in the order of merit. All the odd number students formed the control group while the even number students constituted the experimental group. To see whether both the groups were

matched or not, mean and standard deviation were calculated for their previous examination scores. The control group was taught through traditional method. The experimental group was taught through the new strategy proposed by the investigators.

Data Collection

The experiment was conducted for a period of thirty working days. At the end of experimental period, a post-test was conducted on the slow learners of the control group and the slow learners of the experimental group. The responses given by these two groups in the testes formed the vital data required for the analysis.

Scoring-Procedure

The achievement test consisted of five essay type questions. Each questions. Each question carriers 10 marks these test items were on the basis of item analysis. The total score was 50.

Statistical Techniques used in the Study

The data thus obtained were then analyzed by using appropriate statistical techniques such as mean, standard deviation and test.

Table-1

Name of the Test	N	Mean	SD	Calculated 't' value
Pre-test	40	30.2	3.26	7.1192*
Post-test	40	34.5	3.68	

* Significant at 0.01 level

Table-2

Name of the Test	N	Mean	SD	Calculated 't' value
Pre-test	40	30.8	14.6	13.466*
Post-test	40	78.2	16.8	

* Significant at 0.01 level

Table-3

Name of the Test	N	Mean	SD	Calculated 't' value
Pre-test	40	34.5	3.68	12.41*
Post-test	40	78.2	16.80	

* Significant at 0.01 level

Findings

1. There is no significant difference between the pre -test and post-test mean scores of the control group slow learners taught through traditional method without assignment. Though their performance was better in the post -test they could not make any significant differences (Refer table 1)
2. There is no significant difference between the pre -test and post-test mean scores of the experimental group slow learners when subject was taught and assignment was given. Further, their achievement is higher in the post test than the pre test (Refer table 2)
3. There is significant difference between the post test mean Scores of control group slow learners taught through the traditional method with giving assignment and the experimental group Slow learners taught through lecture method by applying assignment strategy. Further, the achievement of experimental group slow learners is higher than the achievement of control group slow learners. (Refer table 3)

More over experimental rate of progress made by the experimental group slow learners is higher than that of the control group slow learners. In terms of percentage progress shown by the experimental group slow learners taught through lecture method with assignment strategy 153.89%, while the rate of progress made by the control group slow learners is 14.2 % the variation the rates of progress made by both the groups is the resultant product of implementation of assignment strategy and it vouches for the effectiveness of assignment strategy and with special reference to slow learners.

Conclusion

Teaching and learning process must help the growth and development of children. The significant of the role of teachers is to give Universalisation of elementary education. So, the teachers must use different strategies and techniques for the quality of teaching. When we use the assignment strategy in teaching Tamil to slow learners of V Std primary students, it gives effectiveness the teaching learning process.

EFFECT OF COMPUTER ASSISTED LEARNING IN CLASS ROOM INSTRUCTION

Dr. S. Shanthi

Senior Lecturer, DIET, Pallapuram Post, Kumulur, Tiruchirappalli

Educational Technology is a systematic way of designing, implementing and evaluating the trial process of learning. Generally lecture method consists of mere words and makes the learners a passive listener. It is a fact that there is a need for a method, which makes the learner more active with self-participation. Recently computer is used in classroom instruction. The linear and branched models of Programmed instruction developed by Skinner could be used in teaching the content through computer. Moreover, chief merits of Animation, Simulation and colour could also be used while teaching the content the students could proceed in their own pace of learning. Hence, CAL has been emerging as an interesting method of teaching and learning.

Need for the Study

Now-a-days most of the educational institutions both private and government are having many numbers of computers. Aim of the government is to provide computers to all the government institutions. There is a question to what extent the educational institutions are utilizing the computer for teaching-learning process. Under SSA Project every BRCs have computer networks, which provide lot of teaching learning activities to the school children of that blocks. This is a wonderful evidence for the learning through computers in our Indian schools. Investigator is very much interested to know the level of the effect of CAL on Achievement in a selected units of Science among the students of standard V. Hence the problem has been selected in this manner.

Objectives of the Study

The objects of the study are:

1. To find out the significance difference between pre and post test scores of experimental group.

2. To find out the significance difference between post test scores with respect to sex.

Design of the Study

The present study is a pre post single group design. In this study the independent variable is teaching of certain Science concepts through Computer Assisted Learning. The independent variable is the Achievement of the students. The cause and effect relationship was measured in this study.

Units Selected for the Study

The teaching units selected for the study are "Storage of food in root and stem", "Pollution", Natural resources", Systems of Human Body" (muscles, joints & brain). The concepts are selected from the text book of Standard V.

Size of the Sample

The sample selected for the study are from Panchayat Union Primary school, Athiganur. The sample was selected randomly. The size of the sample are 24 students who are studying in Standard V. Out of 24 students, 13 are boys and 11 are girls.

Tool Used

The investigator prepared an Achievement test on the selected units. The achievement test consists of 80 items on the whole. Among 80 items 42 items were multiple choice, 18 items were true or false and the remaining 20 items were classifying the plants and functions of muscles.

The preliminary draft consisted of 92 items and after validity the final draft consisted of 80 items.

Treatment to the Experiment Group

The sample of the study were given treatment through CAL software which is in the nature

of interactive, motivate, reinforce, supplement to the text, feedback and the text was presented in colourful, oral, music, visual, movement etc. The students had given enough time to learn the concepts. The software is in the nature that even the students who do not know computer can also learn the operation of computer without any difficulty. Students took their own time to learn the concepts.

Collection of Data

The data were collected for present study from the pre and post tests on the experiment group using the Achievement test. The right answer was given one score and no score for wrong answer. The collected data were analysed with Mean, SD, and t-test was used to find out the significant difference between two variables. The results of the analysed data are given below.

Table-1
Significant Difference on the Achievement between Pre- and Post-Tests of the Experiment Group

Category	N	Mean	SD	't' Value	Table	Remarks
Pre-test	24	5.95	1.79	31.87	2.021	SD*
Post-test	24	81.17	11.58			

*Significant Difference

The 't' value, 31.87 reveals that there is significant difference on the achievement between the pre and post tests of experiment group students at 0.05 percent level. Hence it shows that the treatment given to the experiment group is significantly effectively.

Table-2
Significant Difference on the Achievement of the Gain Scores of the Boys and Girls

Category	N	Mean	SD	't' Value	Table	Remarks
Boys	13	69.38	10.30	43.42	2.074	SD*
Girls	11	84.18	5.00			

*Significant Difference

The observed t-value, 43.42 in Table 2.1 is found to be significant at 0.05 level. From the perusal of the Mean Value, it is understood that the girls learnt through CAL is scored significantly higher than the boys.

Findings of the Study

The findings of the study drawn from the above analysis are enumerated below:

- Students have learnt significantly higher than the pre-test scores and

- Girls learnt significantly higher than the boys.

Discussion and Conclusion

From the observation of the Pre- and Post-tests scores, it is understood that the students have learnt the selected concepts through CAL very effectively. This reveals that CAL has been an effective method of learning in Science among the students of Standard V. The special features of the CAL, like Animation, Simulation, Self pace of leaning, Colour etc.

might have stimulated the students to score more. The above mentioned positive aspects might have attracted the primary students to draw their attention.

In the second analysis, it is clearly known that girls have learnt significantly higher than the boys. The seriousness and sincerity in the studies might have made the girls to score more marks than boys. It is to be quoted that the general public examination results of X and XII also reveal the same trend, that is girls score higher marks than boys.

As the study found the significant result, CAL may be introduced well in all the schools

where computers are available. The teachers may be encouraged to use CAL in the classroom instructions. It is observed that most of the institutions are utilizing computers for the clerical purposes. But, it may not be denied that the purpose of providing computer by the government or having computers in any educational institution is to utilize them in the classroom instruction. Hence, all the teachers had given orientation towards utilizing computers in the classroom instructions. Maximum Potential of the computer may be utilized to provide maximum benefit to the students.

Category	N	Mean	SD
Pre-test	24	21.79	11.79
Post-test	24	81.17	11.58

***Significant Difference**
The t value, 31.87 reveals that there is significant difference on the achievement between the pre and post test of experiment group. The t value, 31.87 reveals that there is significant difference on the achievement between the pre and post test of experiment group. The t value, 31.87 reveals that there is significant difference on the achievement between the pre and post test of experiment group. The t value, 31.87 reveals that there is significant difference on the achievement between the pre and post test of experiment group.

Category	N	Mean	SD
Boys	13	40.38	10.30
Girls	11	84.18	2.00

***Significant Difference**
The observed t-value, 43.43 in Table 2.1 is found to be significant at 0.05 level. From the point of the Mean Value, it is understood that the girls learn through CAL is significantly higher than the boys.
Findings of the study
The findings of the study, from the above analysis are characterized below:
1) Students have learnt significantly higher than the pre-test scores and post-test scores.

TRAINING TEACHERS IN E-LEARNING METHODS

Dr. R. Ayyappan

Senior Lecturer, DIET, Kotagiri, The Nilgiris

Under SSA planning, quality in education has been equally emphasized as along with the universal enrolment, universal retention and universal achievement. This is so because the attendance and retention in schools depends, to a large extent on the quality of education. The phenomenal growth of Information and Communication Technology (ICT) and their significant use in the field of education has led to the possible realization of 'Education for All' and Life Long Learning'. The indigenous realisation and launch of EDUSAT provides a significant boost to countrywide distance education in India. Broadband Internet is a boon for Internet based e-learning solutions. Anna University is a pioneer in e-learning with its EDUSAT programmes covering all the 29 DIETs in Tamil Nadu. At present a sub hub is also developed in SSA, Chennai to deliver EDUSAT programmes to all BRTes and DIETs in Tamil Nadu. Here the presenter being well versed in the skills of using computers for effective delivery through EDUSAT terminal. Hence to train a huge number of teachers in the basic IT skills in a cost effective manner we can use EDUSAT and the e-learning techniques. The phenomenal growth of Information and Communication Technology (ICT) and their significant use in the field of education has led to the possible realization of 'Education for All' and 'Life Long Learning'. ICT has made it possible to impart uniform and high quality education to all living in different geographical, religious and socio economic status. By using ICT, the educators have gained access to a wide range of media - print, radio, television, audio-video, teleconferencing and tools like computers, CD ROMs, internet, e-mail, e-libraries, e-books and not but the least e-learning and training.

Benefits of E-learning and Training

The benefits of e-learning and training are listed below:

- Cost saving
- Flexibility
- Specific learning
- Anywhere any time
- Global interaction with other participants and tutor experts.

Hence e-learning and training has come here to stay. At present the available e-learning materials are only in English and suitable to the teachers and students studying in English medium schools. Developing e-learning materials suitable to our needs in the regional language as the medium is the need of the hour. This paper is designed to highlight the methods of developing ICT educational training materials with specific reference to the situations prevailing in the state of Tamil Nadu.

The following Table shows the strength of primary and elementary teachers in Tamil Nadu under various categories.

Strength of Teachers in Tamil Nadu

Type of Institution	Teachers
Primary Schools	137227
Elementary Schools	107862
Total	245089

Source: DISE, 2005

From the above Table, it is understood that more than 2.45 lakhs of Primary and Elementary school teachers are working in the state of Tamil Nadu. Giving training to these 2.45 lakhs in the skills of ICT is a big task.

But all these teachers must be trained in the basic ICT skills before implementing the steps for e-learning and training solutions. This can be possible through distance education mode combined with contact classes.

Training

Majority of the teachers teaching in elementary schools do not know how to use a computer either for surfing the net or handling the Computer Based Tutorials available in a Compact Disc (CD). All these teachers must be trained to attain the basic skills of computers.

Suggested Syllabus for ICT Training

The following basic skills are identified for the proposed ICT training. Skills in using the operating systems:

- Input device, Output device, CPU.
- Mouse operations: Click, double click, right click, drag and drop.
- Keyboard - layout, uses of different keys.
- Parts of a 'Window' - Title bar, Menu bar, Toolbar, scrollbar, Desktop, Taskbar and their uses.
- Start menu - Programmes, Find, Help, My Documents and Shut Down.
- Files and Folders - open, close, cut, copy, paste, moving, naming and renaming.
- Changing Wallpaper, Screen saver and Clock Timings.
- Using Paint, WordPad and Calculator.
- Windows Explorer, Scan Disk and Disk Defragmenter.
- Basic typing in 'Word' and saving files.
- Preparing Power Point slides.
- Using Audio, Video and Interactive CDs.
- Internet Explorer, Address bar and Website.
- Internet Explorer - Tool bar buttons - Stop, Refresh, Home, Search, Favorites, URL, Surfing the net, Chatting and hyperlinks.
- E-Mail, Outlook Express, Web based free E-Mail service providers, Composing, Sending and receiving E-Mails,

Attachments and sending same mail to multiple addresses. (Total 65 skills)

Need Analysis

Training in E-learning methods and training through E-learning methods are different. The teachers are to be trained through E-learning techniques so that they can prepare lessons for E-learning techniques. Need analysis and research is a continuous process. There should be a separate team at the state level to find out the training needs of the elementary teachers. Syllabus revision, text book revision and introduction of new concepts in school curriculum like crisis management and lesson on Tsunami, needs a better first-hand knowledge to the teachers and then to the children in elementary schools. If we know the training needs of the teachers then only it is possible to design the suitable E-learning content for them.

Developing Content

Best subject experts, professionals and practicing teachers are to be identified periodically as content developers. Content development is also a continuous process. Once the content developers are identified they should be oriented in the nexuses of preparing e-learning contents. Developing content for e-learning needs much broader and in-depth idea in different fields. It is altogether different from writing a training module for print version. The content developers must be trained to exploit the full capacity of the delivery modes of e-learning contents by multimedia experts.

Steps involved in Content Development Workshop are:

- Customizing learning objectives
- Potential integration of media elements
- Preparing the training content
- Developing and evaluating the contents prepared

The content developers must be trained and oriented in the potential use of various multimedia techniques. E-learning contents will be more effective only when the following

multimedia techniques are incorporated in the developmental process. They are:

- Text and Animated Text with colour
- Graphic and colourful images
- Animation (simulation)
- Audio
- Video
- Interaction

The content so developed must attract the end user.

Implementation

Teachers can help in content development for e-learning. E-learning includes Computer based Training (CBT), Web Based Training (WBT) and Electronic Performance Support systems (EPSS). Once the contents are converted into c-form they can be published through the internet (WEB) and even distributed through CDs and DVDs for regular and frequent references. While publishing in the WEB server side applications may be needed for creating dynamic documents, performance tracking, student record keeping and security measures. A programmer can

write back end applications that perform these tasks. Web server administration and site maintenance can also be done suitable third party management. Usually the system administrator of the professional e-learning solution provider will look after the works connected with server side scripting, site maintenance, server administration, evaluation and updating.

Conclusion

The growth and success of E-learning is closely linked to the design of the quality learning, enabled through the use of technology. Instructional designers play the pivotal role of bringing together these disparate fields for the benefit of students, instructors and organizations. Also many of the concerns of online learning can be addressed through a structured design process. At present, this new technique is only in the infant stage. Lot of quality works and researches are needed in this area to find out better ways and means of improving e-learning and e-training.

EFFECTIVENESS OF ELECTRONIC MEDIA IN TEACHING OF INTERNAL ORGANS OF HUMAN BODY TO THE DTE STUDENTS

P. L. Alagappan, G. Velladurai and T. Elango

Lecturers, DIET, Palayampatty

Introduction

Today we are living in the age of science and technology, which play a very significant role in our daily life. The tremendous development in technology has given a new orientation to the system of education. Considering the relevance of science and technology, the National curriculum framework for school education, brought out by NCERT in the year 2000, recommends the teaching of science and technology as one of the subject areas in the place of science at elementary Level. The document advocates strongly that technology should be integrated with science teaching at elementary level. So the investigator has made an attempt to teach the internal organs of human body using Animation CD.

Need and Significance of the Study

Present students are exposed more to electronic media due to its availability and accessibility. Its colourful audio visual presentation could made tremendous effect among the students. This aspect has been utilized by marketing personnel. This motivated the investigator to find out how far the use of electronic media is helpful in making them understand the concepts than conventional teaching method.

Objectives of the Study

To compare the scores gained through the conventional method and Electronic media.

Methodology

a. Sample

50 students of DTE one year at DIET, Palayampatti, Virudhunagar District.

b. Tools

i) Pre test

In the pre test, all the 50 students were provided with 25 multiple choice questions on

internal organs of human body. Students were asked to write the correct answer. The pre test was conducted with the co-operation of the class teacher.

ii) Exposure

Students were divided into two groups, one was the control group and the other was the experimental group. Each group consisted of 25 students. Internal organs were taught to the control group and the experimental group by the investigator using the Animation CD for the same topic.

iii) Post-Test

Then both the groups were post tested with the same questionnaire in order to find out the effectiveness of the teaching methods used.

Each correct answer was given one mark and the maximum mark was 25. The performance of all the 50 students in the pre- test and post - test (control group and Experimental group) was evaluated and tabulated.

Findings

- The average scores of the pre-tests of the control group is 8% and experimental group is 8%.
- The average scores of the post-test of the control group is 22% and the experimental group is 46%. The experimental group's Post test score is 24% more than that of the control group's post test. This difference is due to the exposure given to the experimental group using Animation CD.

Net Gains

1. Every Student knows the exact location of heart, lungs, kidney and digestive organs of human body.
2. All the students know the structure of heart, lungs, kidney and digestive organs of human body.

3. Most of the students have understood the functioning of heart, lungs, kidney and digestive system of human body.

Conclusion

The mark scored by the experimental group, which was taught by electronic media was

higher than that of the control group taught by conventional method. This indicates that teaching by electronic media helps to learn, register, remember and recall better. So it is recommended that teachers may use animation CD for teaching whenever possible.

DTERT, Chennai

TECHNOLOGY IN CLASS ROOMS - THE NEED OF THE HOUR

P. Arulanadhan

Lecturers, Seva Mandhir TTI, Parangipettai

Technology has become a fundamental element of present life and an indispensable instrument in most of the disciplines. Technology has opened up new and cost-effective approaches for providing more learning strategies to all. As a result, the purpose and objectives of classroom activities have become 'a journey of exploration in the technology world'. A new paradigm has emerged in school education: online learning, virtual learning, computer-assisted instruction, information technology, etc have gradually entered into the school curriculum. The technologies available today and those about to emerge, have the potential to transform the nature of education and the roles of learners and teachers in the learning process. The effectiveness of its response will determine its future. However, the emphasis is on how technology can facilitate learning, particularly through learned centered and collaborative approaches and the development of skills.

Objectives

1. To enable education sectors to use technology-based teaching
2. To give rise to new ideas about access to technology based learning.
3. To create awareness about the integration of technology in the class room practices.
4. To know the major technologies used in the teaching-learning process.
5. To understand the uses of technology in the educational scenario.
6. To suggest the infusion technology in the teacher training curriculum.
7. To decide to have a shift from teaching to learning.

Computer Assisted Instruction

Computer Assisted Instruction (CAI) is an interesting innovation in educational scenario. Its uses have been demonstrated and seem to revolutionise the whole spectrum of education. The CAI can deal with the problem of quality in education more effectively and more flexible kind of branching is possible on the part of the computer according to the student's performance. A learner can make progress at one's pace, receive and choose the material sequencing and level of instruction freely. A complete learning package suiting to his individual needs is presented, sequentially. This package may consist of video as well as audio tape-recording, slides, film strips and so on. The student may make queries to the computer by means of typewriter keyboard and get answered in printed forms. He may write the answers and can be evaluated by the computer. On completion of a programme, the computer records his progress and points out a report for the teacher. CAI will make the class room practices live and student centered.

Power Point in the Class Room Practice

PowerPoint is high-powered, user-friendly software tool used for presenting information in a dynamic slide show format. It creates quick interactive classroom aids in the form of slide-show presentation. These classrooms can be both virtual and traditional. It can be easily exchanged, edited and evolved to enliven a collaborative environment. It bestows the ability to bring in many different kinds of media, including graphic images, coloured background, photographs, sound files, video clips, animation and of course, text. Certainly, this technology will facilitate learning in the class rooms. By using this technology in the classroom practices, a reality can be brought in and it may lead to the ingenious system of education.

Information Communication Technology

At present, the wealth of information that is being transferred across the internet is impressive. 'Linking of computer technology with telecommunications has resulted in information super highway'. Various mechanisms, the worldwide web (www), web browsers, e-mail and news groups have been established to allow students to access, send or retrieve information across the world. This offers a great wealth of resources in a visual static form of an enhanced dynamic form, which is a great use for teachers and learners. Allowing the information to be distributed 'freely' on the internet offers an immense, supportive forum for students.

Online education is the most recent form which is commonly termed as distant education that incorporates satellite courses, computer based programmes, video instruction, educational televisor and home study course. One of the most interesting and powerful dynamics of online communication is 'many to many communication' quality that facilitates group learning.

Multimedia Computer in Class Room Learning

Multimedia computer is a powerful tool for instruction. It is the incorporation of sound, animations, still images, hypertext and video integrated under the control of the computer programme. Students of Chemistry can see live demonstration of the chemical reaction of an experiment, a music student can hear a symphony in full stereo sound and a Biology student can see the toxic experiment before his eyes. The use of multimedia computer can help change the present teacher-oriented system to a student-oriented one. The teachers are the experienced guides here. It will enhance the quality of education in all the teaching-learning strategies.

LCD, Digital Cameras, Portable Scanners and Other Digital Devices

These are used in many schools for instructions due to their simplicity and affordability. Digital photography can be used for electronic field trips, presentation, web-page design, science experiments, documents, compiling portfolios, and job progress records. For educators, presenters and students, scanners offer an easy way to incorporate images in to presentation. Scanners can copy, fax or even e-mail a lesson to other. Liquid Crystal Display (LCD) can also be used in the classroom practices by connecting to the computer. Many other digital devices like digital blackboard, electronic tablet, electronic pen and touch-screens etc. can be utilized by the teacher and students for technology enhanced class room learning.

Conclusion

Infusion of technology in the classroom practice will make them 'high-tech' classrooms. It is important for teacher education institutions to understand the knowledge and skills necessary for teaching to effective use of electronic-based education in their instructions to develop and welcome a partnership with electronic education. The teachers should update their knowledge because the student is now-a-days as good as the teacher. He or she should constantly try to upgrade their skills and encourage the children to think big.

In order to make education more meaningful, exciting, interesting and accessible to all, the new technology needs to be linked with the process for learning. The new technology is not only capable of overcoming the barriers that distance presents, but also changes the very nature of the instructive process.

CONTINUOUS EVALUATION OF LEARNERS PERFORMANCE USING 'PARAKH' - A SELF INSTRUCTIONAL PACKAGE DEVELOPED BY DEP-SSA, ORISSA

Dr. Susandhya Mohanty and Miss Lipika Sahoo

Teacher Educator, DIET, Dhenkanal, Orissa

There has been a great shift from access to enrolment and enrolment to achievement in the context of ensuring Quality Education for the Children at the elementary stage. It is universally felt that unless and until the learners are equipped with academic inputs their achievement cannot be raised to a comparable standard. Research studies reveal that learners need individualized instructions in the way of providing some instructional materials to them. In this connection SIMs (self instructional material) play a vital role to fulfill their needs. Being self-explanatory, SIM is the most convenient input to work with. SIM is quite different from a textbook.

DEP-SSA, Orissa has developed quite a good number of SIMs for the teachers and students. 'PARAKH' is one of them. To develop the scientific thinking, knowledge, ability, attitude and interest of the students 'PARAKH' was developed by DEP-SSA, Orissa. It also arouses creative thinking, self-learning and inquisitiveness among the children. To know the learners' performance, the Investigators decided to evaluate the students after using the SIM (PARAKH).

Objectives of the Study

1. To analyze the essential features of the SIM suitable for the learner of Class-VI and VII in Science.
2. To study the impact of the SIMs on the learners' performance through continuous evaluation.

Tools

1. A questionnaire for the students and the teachers.
2. An assessment format to be filled in by the teacher observers.

Materials

1. 4 Unit-tests.
2. Text books prescribed for Class-VI and VII.
3. Items of Parakh Package meant for Class VI and VII.

Sample

25 Students of class-VI and 25 students of Class-VII were taken for the purpose of the study. Two Science teachers were selected on purpose to observe the activities and guide the group when required.

Procedure of the Study

First the teachers were acquainted with the package in respect of the use and technical know-how's. Then a content analysis format was supplied to each teacher to fill up the same, then they were asked to go through the SIMs for one hour and give their opinion with regard to contents, concepts and relevance of the materials. Then the students were divided into small groups consisting of five in each group. They were given instruction to perform the task accordingly. A time table was made for each session and activities to be performed according to the items mentioned. For each card containing the item 15 minutes were given. The teachers went round the 10 groups (Five groups for Class-VI and Five groups for Class-VII). A particular session was divided into different phases as mentioned below.

1. Five minutes for clarification of the specific concept.
2. Twenty minutes for conduct of experiment in group.
3. Ten minutes for verification of group work.
4. Ten minutes for summing up.

Parakh

Parakh is a package containing SIMs 96 cards of Scientific experimentation from Class- III to VII. The card reflects the followings points in four divisions.

1. Materials required for the experiment.
2. How to conduct experiments.
3. What are to be observed.
4. Searching for probable reasons and what other activities can be conducted for enrichment of the material.

Instruction to the Students

6.2 is explained like 6 stands for Class-VI and 2 stands card no.2.

7.9 means 7 stands for Class-VII and 9 stands for card no.9.

The experiment can be conducted by individuals or in groups. It is advised to start the work in group to gain practical experience from the very beginning of the work.

Key Points to Follow

- Distribute the work among you.
- Read the material and go step by step.
- Keep attention on organization of the experiment.
- Arrange the materials according to the SIM card and conduct the experiment.
- Write your observation in your note book.
- Write if you face any difficulty in the specific item and consult with your teacher.
- Draw inference after one experiment is over.

Concepts of the SIMs dealt with

The topics selected for the study from Std.VI were: Fragility of matter, Elasticity of matter,

Transmission of heat, Properties of Hydrogen and Oxygen, Diffusion of gas, Properties of magnet, Chemical changes, and Weather depends on Air pressure & temperature. The topics selected from Std. VII were: Vegetable and fruit contain acid, Latent heat, Reflection of Light, Matter contains energy, Use of electric magnet, Prime colours and other colours, Light travels in waves, Sound waves and Water waves.

Practical Sessions and Interactions

Phase I - The students were divided into 10 groups (5 for Class VI and 5 for Class VII) each consisting of 5 students. One experiment was demonstrated by the teacher in the group to which they were assigned. The students were instructed to observe and interacting during demonstration.

Phase II - The students in groups went through the modules and carried on self-learning exercises (experiment). The teacher observed the activities of the students. He also helped the students as per the requirement of the classes. He moved round all the groups and extended necessary guidance. After the presentation of one concept by one group, others reacted to it. In this way interaction continued using the SIMs in all 10 groups and a single teacher was allotted for the purpose for one week. Interaction was carried on for 4 weeks.

Unit-test was conducted after one week. In this way 4 Unit-tests were conducted for each class. The performance of the learners are reflected in the Tables 2 and 3.

Table-1

Distribution of scores in pre-test and post-test (Class-V)

Unit	Clustered competencies	Mean Score of the students	
		Pre-test	Post-test
I	Separation of Mixture	7	12
II	Properties of matter	8	14
III	Changes around us	10	16
IV	Air	12	18

Table-2

Distribution of students' scores (Class VII) in pre-test and post-test

Unit	Clustered competencies	Mean Score of the students	
		Pre-test	Post-test
I	Properties of Matter	8	13
II	Acid, Bases, Salt	8	14
III	Light	12	16
IV	Energy	11	15

Table-3

Distribution of scores in pre-test and post-test (Class-V)

Items	Fully		Partially		Not at all	
	No.	%	No.	%	No.	%
Self-explanatory	36	60	14			
Self-contained	35	70	15			
Self-directed	35	70	15			
Self-motivated	38		12			
Self-evaluated	34		16			

It is observed from Tables 1 and 2, that in both the classes students progressed in post-test.

It is revealed from the Table 3 that 70 percentage of the respondents were of the opinion that the SIM satisfy the conditions of self learning. The rest 40% of the respondents were of the opinion that the SIM partly fulfill the need for self learning.

Findings of the Study

1. In Class-VI, 16 students out of 25 (64%) could conduct experiment in groups. 18 students out of 25 in Class-VII could conduct experiments in groups which was observed by the science teachers.

2. In class-VI, 15 students out of 25 (60%) in Class-VI could respond to "Why" type of questions. In Class-VII 18 out of 25 (72%) could respond to "Why" type of questions.
3. In Class-VI, 15 out of 25 (60%) of students could draw reference at the end of the experiment.
4. In class-VI, 17 out of 25 (68%) the students could attain the concepts as reflected in the card through experimental and 19 out of 25 (76%) of students could attain concepts as per the law.
5. The students of both the classroom were found working with zeal and vigour in the group as marked by observers.

EFFECTIVENESS OF PERIODICAL EVALUATION OF BARPETA DISTRICT

Ganesh Ch. Goswami, Rupnath Das, Pradip Roy and Dhiraj Mohan Bharali

Lecturers, DIET, Barpeta, Howly, Assam

Evaluation is the process of assessing the attainment of the pre-determined objectives of the teaching learning process. Evaluation is to be considered as an implicit aspect of all true education. It is a behavioral concept. Evaluation is to be taken as a more comprehensive concept than either measurement or examination. Measurement and examination may be part of evaluation but they do not stand for evaluation as such.

Evaluation covers both scholastic and co-scholastic aspects of the learner. It helps in the all round development of the pupil and it is a continuous process. Evaluation has good scope for diagnosing the student's strong and weak points and to take remedial measures. It evaluates the teachers also. Evaluation is always objective orientated and there is the provision for its analysis.

Objectives of the Study

Following are the main objectives of our study:

- i. To find out the impact of periodical evaluation on present education system.
- ii. To evaluate teacher's attitude towards the periodical evaluation.
- iii. To find out how far learners are benefited by the periodical evaluation.

- iv. To find out guardian's involvement and attitude towards periodical evaluation.

Tool of data collection

The following tools have been used to find out the required facts for present study:

1. Questionnaire for teachers
2. Questionnaire for guardians
3. Schedule for students
4. Observation schedule for investigators.

Sampling design

All Schools of Bhalaguri C.R.C. were taken as sample for data collection. Again only 5 students from each school of Class III presently in class IV were taken as target group for the study through lottery system.

Procedure

In the present study almost all the data collected from primary sources. Field trips were arranged to schools and villages to meet students, teachers and guardians. Using the tools meant for the study data were collected by the investigators themselves.

The systematic analysis of data in the study collected by different tools yielded the following results.

Table-1: Opinion of Teachers in respect of different aspect of periodical evaluation
(Total Number of Teachers: 33)

Sl. No.	Aspects	No. of Positive Response	Per-centage	No. of Negative Response	Per-centage
1.	Effectiveness of Periodical Evaluation	25	75.76	8	24.24
2.	View regarding importance of Remedial teaching	23	69.67	10	30.30
3.	Implementation of Grade system	20	60.61	13	39.39
4.	Involvement of teachers in the setting of question paper.	14	42.42	19	57.58

Sl. No.	Aspects	No. of Positive Response	Per-centage	No. of Negative Response	Per-centage
5.	Development of writing skill of students	14	42.42	19	57.58
6.	Opinion regarding the standard of question papers of periodical evaluation-	20	60.61	13	39.39
7.	Lack of scope for gifted student	25	75.76	8	24.24

From the Table-1 it becomes evident that:

- i) Regarding the effectiveness of periodical evaluation 75.76% of teacher's response is positive.
- ii) Teacher's view regarding remedial teaching is positive i.e. 69.67% teachers needed remedial teaching in school but Table No.3 shows that nobody performs remedial teaching in their schools.
- iii) 60.61% percent of teachers prefer grade system in place of marking system in the examination.
- iv) 57.58% teachers feel that they are not involved in question paper setting of evaluation procedure.
- v) 57.58% of teachers think that writing skill of the students do not develop in the present system of evaluation.
- vi) More than 50% teachers agree that standards of question paper of present periodical evaluation are justified.
- vii) 75.76% teacher's apprehension is that gifted students are deprived in the present system of evaluation.

Table-2: Opinion of Guardians in respect of different aspects of periodical Evaluation
(Total Number of Guardians: 50)

Sl. No.	Aspects	No. of Positive Response	Per-centage	No. of Negative Response	Per-centage
1.	Regular visit of guardians to school	39	78	11	22
2.	Presence of guardians on the day of announcement of result	2	4	48	96
3.	Signature of guardians in the answer scripts.	23	46	27	54
4.	Knowledge regarding periodical Evaluation .	41	82	9	18
5.	Knowledge of guardian's about remedial teaching	9	18	41	82
6.	Opinion regarding special teaching in the school	47	94	3	6
7.	View regarding holding of remedial teaching in school	11	22	39	78

Sl. No.	Aspects	No. of Positive Response	Per-centage	No. of Negative Response	Per-centage
8.	Opinion regarding promotion without acquiring the competencies	49	98	1	2
9.	Opinion regarding separate answer scripts.	25	50	25	50

From the Table-2 we can interpret the guardian's view on different aspects of periodical evaluation in the following way:

- 78% guardian's visited their children's school as and when called by the teachers of concerned schools in the session 2005. But only 4% guardians attend school on the day of announcement of result.
- 46% guardians put signature in the answer scripts of their children but from our observation schedule it is found that only a few number of guardians put their signature in the answer scripts.
- 82% guardians are aware that present periodical evaluation is something different from the previous one.

iv) Only 18% guardians are familiar with the concepts of remedial teaching and 94% guardians expect that remedial teaching should be given to needed students but 78% guardians opines that teachers are not interested to give remedial teaching.

v) 98% guardians do not like to promote their children to the next class without acquiring needed competency on the subjects.

vi) A large number of guardians prefer present periodical Evaluation but 50% guardians is of the opinion that separate sheet of question paper and the authority should supply answer scripts.

Table-3: Students performance in the periodical evaluation session 2005
(Total Number of Students: 50)

Sl. No.	Aspects	No. of Positive Response	Per-centage	No. of Negative Response	Per-centage
1.	Over marking in the periodical evaluation.	11	22	39	78
2.	Under marking in the periodical Evaluation	4	8	56	92
3.	Holding of Remedial Teaching.	0	0	50	100
4.	Competencies Acquired.	16	32	34	68

After detailed analysis of the format regarding the effectiveness of evaluation and interview schedule for students (Table No.3 i.e students performance in the periodical evaluation (2005) we can come to the conclusion that:-

- 22% of answer scripts in different subjects in different periodicals found over

marking and 8% of answer scripts found under marking.

ii) In 100% schools teachers never performed remedial teaching, although it was actually required in that session.

iii) Only 32% of students promoted to the next class after acquiring needed

competency of the subjects while remaining students were promoted without acquiring the competencies.

On the basis of investigator's observation schedule following irregularities are mentioned.

- i) In some schools teachers are not at all sincere to retain the answer scripts properly.
- ii) In 10% school answer scripts not available.
- iii) In a particular school answer scripts are not checked but marks were entered in the cover page of the khata and also in the examination register.
- iv) Except few teachers nobody used red ink in checking answer scripts. Again except a few teachers wrong answers are not corrected in the answer scripts.
- v) Guardian's signature in almost all answer scripts and teachers signature in most answer scripts are not seen during our observation period.
- vi) The tendency of checking answer scripts by others other than the teachers he is also noticed during our observation.
- vii) In English paper marking is done without understanding the meaning of direction given in the question paper.
- viii) From the minute observation of the answers it becomes easy to presume that teachers helped their pupils in the writing of answers at the time of examination hours.
- ix) Although trainings were imparted to teachers for school graduation, but not to speak of school but pupils gradation was also not done in almost all schools.
- x) Investigator's observation left no stone unturned to identify the similarity of answers in answer scripts which clearly proves the lack of sitting arrangement of students at the time of examination hour.

Suggestions

On the basis of analysis and interpretation of data and major findings following suggestions are made:

- i) It should be confirmed that no students would be promoted to the next higher class without acquiring the required competencies in subjects
- ii) Measures should be taken to confirm holding of remedial teaching immediately after the Unit Test.
- iii) Necessary training should be imparted to the teachers for school Management and planning and Evaluation.
- iv) Since evaluation is a indispensable part of whole teaching learning process therefore each and every teacher should be involved in the process of evaluation particularly in question paper setting.
- v) Proper arrangement should be made in checking answer scripts during the school hour.
- vi) For class III and IV separate question paper and answer scripts should be provided.
- vii) Proper arrangement should be taken to invite the guardians and results should be declared in front of guardians mentioning common errors of students.
- viii) Regarding evaluation Government should made a proper policy in collaboration with training institutions of the state.

To cope with the present age a scientific education is essential. Evaluation is the part and parcel of total education system. Therefore, proper weight age must be given to evaluation to make education successful. The present study on evaluation reveals some of the notable points, which stand against the proper and systematic arrangement of evaluation in our elementary education. All round development of the students is must in school and it can be possible only through proper evaluation.

EVALUATION FOR TEACHER EDUCATION

P. M. Kala Vincila

Principal, C.S.I.V.V.T.T.I., Irenepuram

Quality means engaging in a systematic and continuous process of development and incremental change that is heavily dependent for its success on all the "Partners" having meaning, purpose and satisfaction in their work.

Quality can be developed in teaching, tutoring, learning, assessing as well as staff training and development.

Objectives

1. To find out the teaching competency of D.T.Ed students.
2. To find out the level of teaching aptitude of D.T.Ed students.

Tools for Evaluation

1. Rating scale for Evaluating Teaching Competency of D.T.Ed students,

Structured and Validated by the Investigator.

2. Teaching Aptitude Test for D.T.Ed students. Structured and validated by the Investigator

Rating Scale for Evaluating teaching Competency of D. T. Ed Students

The Evaluation is based on Eight components. i.e., Lesson plan, Motivation, Teaching Learning Materials, Black board work and illustrations, Teaching Learning activities, Questioning, Class room Management, Closure of Lesson. The Evaluator may not aware of the sub components to be evaluated under the Eight components. So In order to maintain accuracy in Evaluation and to develop quality, Sub-components were introduced.

Rating Scale for Evaluating teaching competency

Item	Specification	Unsatisfactory	Satisfactory	Good	Very Good	Excellent
Lesson plan (the observer may refer to the lesson plan)	i. Lesson plan preparation	1	2	3	4	5
	ii Clarity relevance to the content	1	2	3	4	5
	iii Application of fundamental Principles	1	2	3	4	5
	iv. Logical organization according to content and psychological organization as per need of the pupil	1	2	3	4	5
Motivation	i. Greeting, accepting	1	2	3	4	5
	ii. Linking with past experiences	1	2	3	4	5
	iii. Link between introduction and main parts properly formed	1	2	3	4	5
	iv. Use of appropriate devices like questioning, examples, exhibits etc.	1	2	3	4	5

Item	Specification	Unsatisfactory	Satisfactory	Good	Very Good	Excellent
Teaching Learning Materials	i. Relevant	1	2	3	4	5
	ii. Appropriate to the pupils' level	1	2	3	4	5
	iii. Properly displayed	1	2	3		5
	iv. Appropriately used or handled.	1	2	3	4	5
Black board work and illustrations	i. Writing on the Black board clear and visible.	1	2	3	4	5
	ii Letters on the black board were legible and Distinctive	1	2	3	4	5
	iii. Illustrations were simple and interesting	1	2	3		5
	iv. Relevant to the point being explained					
Teaching Learning activities	i. Activities done by the teacher, student, individual and group	1	2	3	4	5
	ii Reinforcement activity	1	2	3	4	5
	iii. Activities clear, continuity and relevance to the content	1	2	3	4	5
	iv. Continuous Evaluations	1	2	3	4	5
Questioning	i. Structuring questions at different levels	1	2	3	4	5
	ii. Questions are grammatically correct, unambiguous, precise and relevant to the content	1	2	3	4	5
	iii Questions delivered with appropriate speed, with proper intonations and pith allowing pause for thinking	1	2	3	4	5
	iv. Questions covering even non volunteers.	1	2	3	4	5
Class room Management	i. Teacher-Pupil Interaction	1	2	3	4	5
	ii Reinforces students learning behaviour	1	2	3	4	5
	iii. Arranges special assistance to less able students	1	2	3	4	5
	iv. Safe class room climate	1	2	3	4	5
Closure of Lesson	i. Points to be organized,	1	2	3	4	5
	ii. Application of new technique	1	2	3	4	5
	iii. Asking adequate recapitulation question	1	2	3	4	5
	iv. Apperception and follow-up-work.	1	2	3	4	5

This study shows the Rating Scale for evaluating teaching competency of D.T.Ed. students and the teaching aptitude test for the D.T.Ed. students from this the teaching competency and the teaching aptitude can be

tested. So that the improvements in standard of education can be achieved. This tools can be used for the teacher trainees as well as for the working teachers.

EVALUATION - TEACHER EDUCATION - SCHOOL EDUCATION

M. Rajendran

Ph.D. Scholar, SRM School of Education and Research,
Potheri, Kancheepuram Dist.

Whatever is not tested cannot be learnt well. A comprehensive evaluation provides the means to know whether the learning experiences contained in the Content have been adequate and effective to achieve the instructional Objectives. The Objective based evaluation measures the changes in pupil behaviour accurately and helps in diagnosis and prognosis of the strengths and weaknesses of each pupil, helps in the selection of remedial/compensatory work and in the modification or enrichment of the instructional programme.

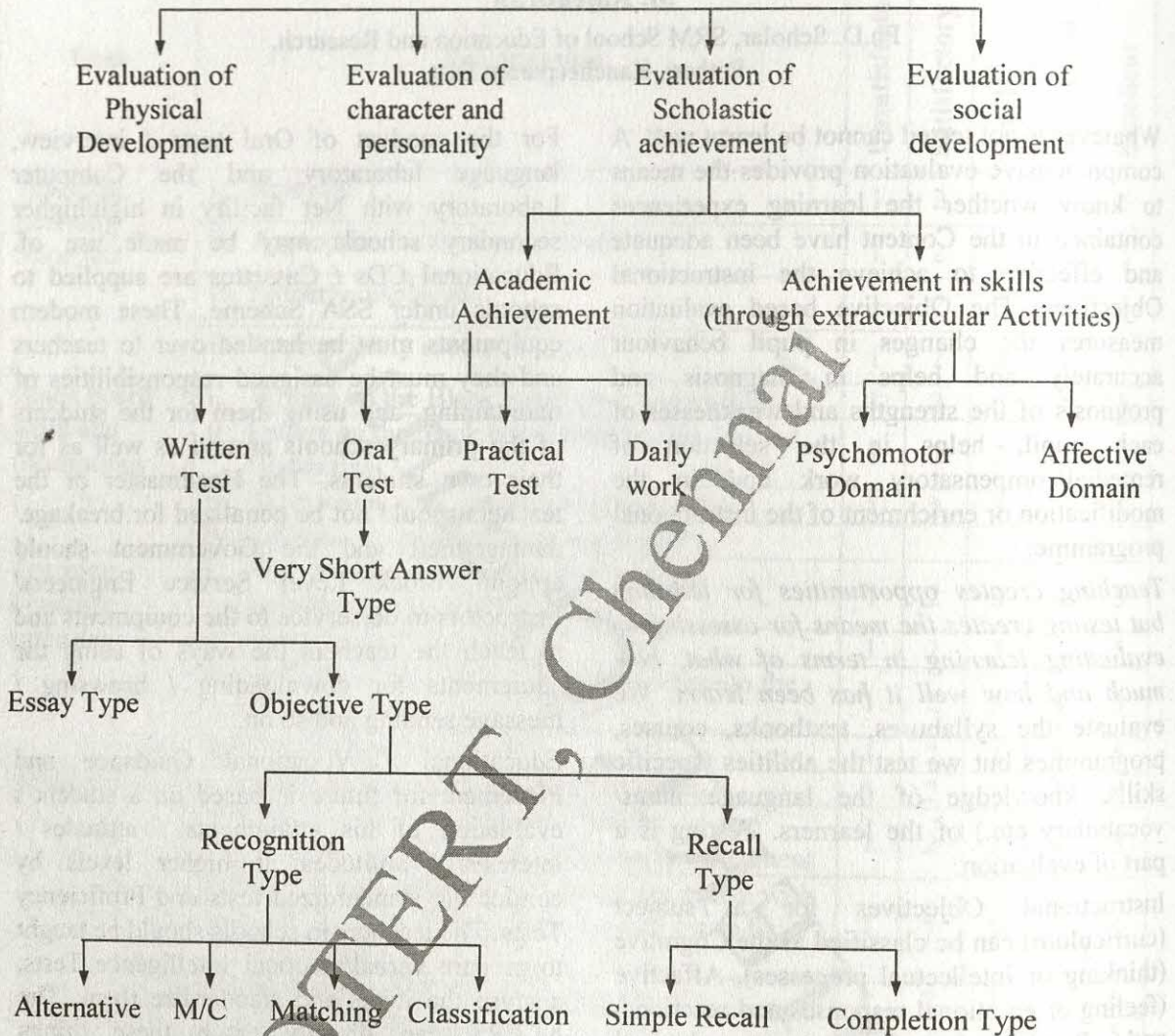
Teaching creates opportunities for learning but testing creates the means for assessing or evaluating learning in terms of what, how much and how well it has been learnt. We evaluate the syllabuses, textbooks, courses, programmes but we test the abilities (specific skills, knowledge of the language items/vocabulary etc.) of the learners. Testing is a part of evaluation.

Instructional Objectives for a subject (curriculum) can be classified as the Cognitive (thinking or intellectual processes), Affective (feeling or emotional responses and reactions) and Psychomotor (acting or physical movements of the body) domains which are not independent but interact with each other. The NCERT has given the 22 objectives and their specifications for each stage of education. But only the Cognitive domain is tested in schools. The total scheme of evaluation given by the NCERT may be slightly altered to include VSA (Very Short Answer Questions) type questions under Oral Test, and Psychomotor and Affective Domain by extracurricular activities under the Achievement in Skill category.

For the conduct of Oral tests / interview, language laboratory and the Computer Laboratory with Net facility in high/higher secondary schools may be made use of. Educational CDs / Cassettes are supplied to schools under SSA Scheme. These modern equipments must be handed over to teachers and they must be assigned responsibilities of maintaining and using them for the students of the primary schools around as well as for their own students. The Headmaster or the teachers should not be penalized for breakage/damage/theft and the Government should appoint Block Level Service Engineers/Instructors to do service to the equipments and to teach the teachers the ways of using the equipments for downloading / browsing / message sending and so on.

Educational / Vocational Guidance and Placement for future is based on a student's evaluation of his attainments / attitudes / interests / aptitudes at higher levels by conducting standardized tests and Proficiency Tests. The teachers in schools should be taught to prepare verbal/practical Intelligence Tests, analyse the items and standardize them. The NCERT can directly teach these things through the internet. So far some selected teachers /officers are made aware of these things and the things pass on to the teachers slowly. The tools of the evaluation(unit test/Term Examination/Annual Examination) should satisfy the criteria of validity, reliability, objectivity and usability. While training the would-be teachers, they must be drilled to prepare the Unit Test/ Term Test/Annual Examination Paper, Verbal I.Q Test , do item analysis and standardize them and guided to prepare the blue print of the tests.

Total Scheme of Evaluation (J. C. Aggarwal)



The raw scores of the students in the unit test/Annual (Public) Examination may be converted into Z-Scores and T-Scores (Standard Scores) for the easy identification of slow learners, average and the bright children. As over-aged children who are drop outs from the schools are brought to schools, the teachers need not suffer to find out their Mental Age to calculate their IQ. Twice of the T-Score gives their IQ values with the SD being the same. Rural Children learning under Tamil medium find it difficult to answer the IQ Tests/Puzzles prepared by the city dwellers get discouraged. Let the school teachers at a block level join together, prepare IQ tests and get it

standardized. The PTA in every school is enough to create funds for the smooth running of the school. In the name of community ownership, people with political affiliations would come and vitiate the learning atmosphere prevailing in the school. Upto VIII Std, no student should be detained. Slow learners may be identified and given treatment in the evening hours or during the vacation. Instead of inculcating values through teaching, the students are urged to memorise, recite and write. The tests may be criterion-referenced rather than norm-referenced and students may be ascertained of their status as "Excellent,

Very Good, Good, Average, Below Average and Dull) instead of their being rank-ordered.

The strength of Communicative Testing is the emphasis on actual use of language in real life situations based on the communicative needs of the learners. As the ABL system is introduced in primary classes, all the tests must be oral and written. As far as the second language is concerned, students may be tested for their speaking skills in phonology, syntax, morphology, semantics and pragmatics. As it was found difficult to conduct the oral test, the teachers even ignore the practical examinations in languages. Half of the marks may be allotted to the oral questions.

Students who want to be teachers in primary schools may be selected at the end of X class itself. A condensed syllabi in maths, physics, chemistry, biology, history and geography besides the languages, they must study in +1 and +2 classes. In DTE, they must be drilled in physical education, Drawing, Painting, Yoga, Music, Dancing, Writing of Cash Books, Gymnastics etc and also in Scouts and Guides, JRC, and Science Club activities. They must be taught computer graphics, and other basic skills to down load, to send message, to copy in CDs and Floppies, to browse and to do

office work in computers. They must be trained to prepare a question bank for a subject to a class and the way of plotting the regression line to identify the under-achievers and over-achievers and in the preparation of the Student- item chart for diagnosing the disorders in all the skills of the language.

The affective domain is hard to be measured in primary classes. The methods of evaluating interests and attitudes can be through self-report procedures, observer reports and the interview. These are less practicable and useful in the primary classes. The close-ended tests are useful for testing reading skills, listening skills, vocabulary items and grammar items. It is difficult to use these items in communicative tests given to students in VI class onwards. The open ended tests can be used for testing vocabulary, grammar and language skills. The teacher trainees should be trained to work out these values for the test items they have prepared.

So, the conduct of evaluation in both Oral and Written forms (through the computer or not) is essential for the elementary classes. The inspecting officers should see how many unit tests both oral and written tests are conducted by the teachers in an academic year.

HOME WORK AND OTHER ASSIGNMENTS - A NEED FOR MAINTAINING QUALITY

S. Esther Rani

Lecturer, DIET, Munanjipatti

The main focus of primary education is on the children. Children's attainment of knowledge can be measured at all levels. Otherwise the very purpose of education may be collapsed. A well designed system of evaluation should not only be measurement oriented but also be improvement oriented. It provides information and insights to achieve better results.

The meaning of the word evaluation is judging. *The main purpose of evaluation is to know about the student's progress toward goals.* It provides evidence for the changes of behaviour in students. At the primary level home work and other assignments are used for day to day evaluation. It becomes meaningful when they are properly evaluated and feedback is given. Homework and assignments really enhance children's learning. Systematic and well planned competency based evaluation has profound implication on the achievement of the students.

Need for Evaluation in Homework and other Assignments

Home work and other assignments are really crucial area of teacher's work and that can have key influence over the ways in which pupils develop and improve. Usually the teacher gets feedback from the pupils without good and consistent evaluation of student's abilities. In such a situation a teacher cannot provide work that moves the children on at the right rate.

If tests are to yield valid and reliable indices of student learning, the teacher has to ensure that ideal conditions are provided in test situation. By providing more and more opportunities for students to assess themselves and assess one another their perception could be brought closer to the teacher's perception.

Steps to be followed in the Evaluation of Home Work and other Assignments

Teacher's response to children work is an important aspect of communication between teacher and the student. It establishes expectations, emphasizes targets, praises, and encourages achievement, supports and extends students work, and has a profound effect on how they feel about it, and so is worthy of careful consideration. The following things help teacher to make the most of feedback to encourage learning.

Words of Appreciation for Quality Evaluation

Words of appreciation creates the positive approval among the children. Even a real pat on the back, sending them to another teacher, the head, even honouring in the assembly gives positive support for the children in better learning.

Encouragement for Better Learning

Evaluated best work displayed to the next of the students work, i.e., the neatness, clarity, well structured neat presentation can be explained in the class room. This will encourage quality learning that the teacher expect from the children.

Approach form of Response

When evaluating the homework and assignment, oral feedback given directly to the student will clearly be more appropriate than written remarks. For younger children, oral feedback is essential. Oral feedback is likely to have more impact than a written message.

Written Feedback

Written feedback is always in brief. It is better to give written feedback on selected issue. This kind of written feedback specifically gives better focus on the related selected issue.

Marking and Grading

Marking and grading keep a focus on the intended learning outcomes.

Negative comments end on a Positive Note

To make a negative response to a piece of work, a simple comment indicating that the child is capable of doing better" gives the child somewhere to go , and a safety net for dignity.

Date and Record the Work Evaluated

This is the most important criteria for evaluating homework and assignments. Having the date on every piece of work is useful to keep track of children's progression in learning. This will promote the sincerity in submission of work concisely.

Conclusion

Evaluation is one of the most powerful driving forces for learning. Evaluation helps the teacher to teach better. Evaluation is something, that a teacher always have to do. So a teacher should try to devote time and effort in proportion to the potential benefits to be gained by everyone through the process. Evaluation can take up enormous amounts of time and effort. To make the best of opportunities for assessment, it is worth considering, that the teacher should try to achieve the least complicated and stress-free way of giving home works and other assignments that is the most needed one for the learners.

DTERT, Chennai

IMPACT OF THE MODULE UNMESH-III ON BUILDING CAPACITY OF THE DRG MEMBER IN THE CONTEXT OF MULTIGRADE TEACHING

Debendra Kumar Misra

Principal, DIET, Khalikote, Dist Ganjam, Orissa

The class room scenario of primary schools in Orissa at present pass through various situations. Some schools are handled by single teacher with three classes and some school run by single teacher with five classes and two teachers with five classes. These are called schools with multi-grade setting as a teacher handles more than one class at a time. The teacher pupil ratio with sparsely populated catchment area makes the situation so. In such condition the teacher takes a pivot role for the smooth academic management. This condition is not only prevalent in Orissa but also in other states of India. It is also seen in the world. Very often it is complained by they confront with many difficulties in handling classes in multi-grade situation.

“Pedagogic failure in rural multi-grade schools is due to the fact that such strategies have ignored silent operation of multiple learner’s characteristics, class room characteristics that affect teaching learning in these schools considerably” (Prof.D.K.Bhattacharjee, 1998).

After a need assessment of the teachers working in multi-grade situation the OPEPA/SSA, Orissa, the module UNMEHS-III was prepared to build the capacity of the DRG members of 30 Districts of Orissa who will train the teachers at the cluster level/block level. The SSA, Chhatrapur sponsored 37 DRG members to get the training on UNMESH-III at DIET, Khallikote.

Objectives

The training aimed at the following objectives. The DRG members will be able to:

- handle more than two classes at a time,
- spell out objectives for the clubbed classes (Cognitively closed and Cognitively distant),
- design lesson plans for multi-grade teaching.

- put the following concepts into practice.
 - space-management
 - time-management
 - assign work to the monitor
- design common activity for all the classes.
- design self-learning activities and peer learning.
- give stress on learner evaluation.

Sample

37 DRG members based on purposive sampling.

Tools

- Pre-test and post-test questions
- Observation schedule
- Rating scale

Design

Pre-test, intervention and post-test on a single group.

Focal Points

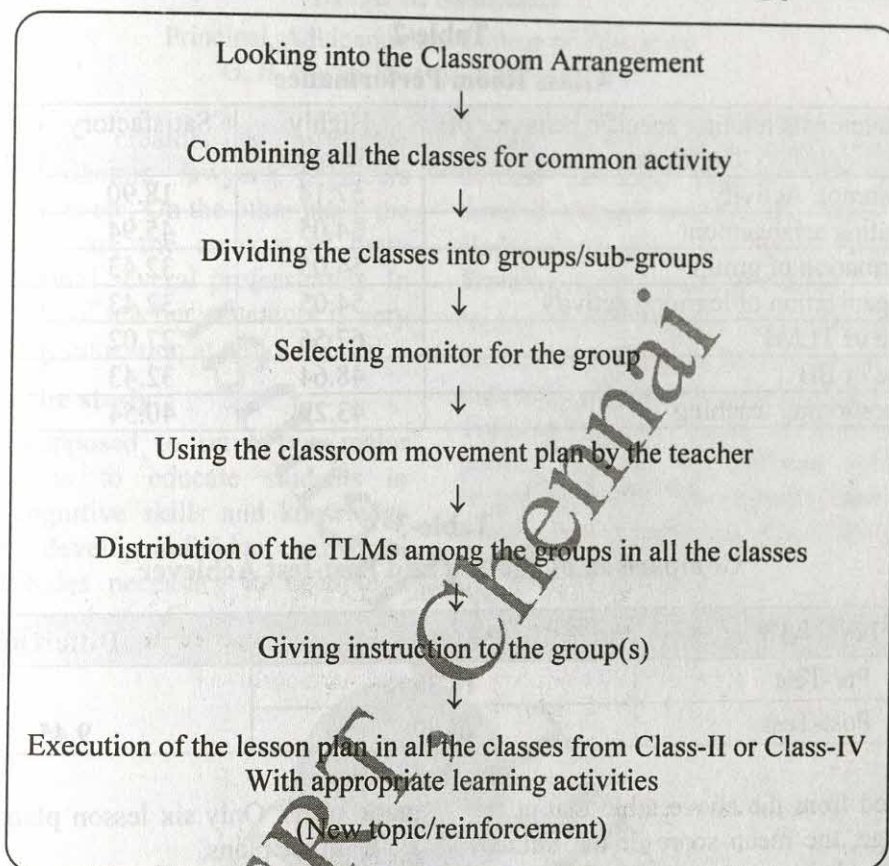
- ✧ Bringing the slow learners and average learners upto the level of minimum competence.
- ✧ Diagnosing the learning difficulties of the learners.
- ✧ Developing a sense of cooperation among the learners to help each other in learning.
- ✧ Checking the filled in worksheets and correcting the same in the group.
- ✧ Increasing the rate of participation of the learners in the group work.
- ✧ Streamlining self-learning exercises to minimize waiting time and extend engagement time as per the need of the classroom.

Field Testing

Formation of five groups. Each group consisting of eight members (5×8=40).

Assigning RP to each group (besides the Principal's visit). Practical sessions on multi-grade teaching continued as per the time table

prepared. The DRG member is assigned when is to take class in a multi-grade situation resorted to the following procedure:



The observers will be watching the class of the teacher using the observation Schedule, TL process continued in all the selected schools for three days.

Every day on return from the schools there was length and breadth wise discussion in the afternoon adhering to the parameters reflected in the observation schedule. A 3-point scale was used to rate the performance of the teachers through observation and it should be stated in specific terms, as per instructions

given to them, they mentioned thereby encircling specific item which was presented during discussion sessions. All the RPs were present and they also exercised their views on what they observed. The learnability of the individual trainee was ensured to every inch.

On the 7th day, post-test on the 7 days learning programme was conducted to assess the effects of the interventions on UNMESH-III. The answers were evaluated, interpreted analysed and findings were arrived at.

Table 1
Gradation of Lesson Plans

No. of Lesson Plan	Grades awarded				
	A	B	C	D	E
37	12 (32.43%)	19 (51.35%)	6 (16.2%)	-	-

Adopting a five point scale the lesson plan was rated out from 37 lesson plans prepared on multigrade teaching and it was found that

32.43% were rated grade 'A' 51.35% were 'B' grade lesson plan, 16.2% were 'C' grade lesson plans.

Table-2
Glass Room Performance

S. No.	Statements relating specific behavior of the teacher	Highly satisfactory	Satisfactory	Needs improvement
1.	Common Activity	57.14	18.90	27.02
2.	Seating arrangement	54.05	45.94	-
3.	Formation of group	54.05	32.43	5.40
4.	Organization of learning activity	54.05	32.43	13.51
5.	Use of TLMs	67.56	27.02	54.00
6.	Use of BB	48.64	32.43	18.90
7.	Questioning teaching	43.29	40.54	16.21

Table-3
Comparison of Pre-test and Post-test Achiever

Test N-37	Mean	Difference
Pre-Test	18.35	9.45
Post-Test	27.80	

It is revealed from the above table that at the pre-test stage, the mean score of the trainees relating to their concept on multigrade teaching was 18-35 as an effect of the such boys training it was raised to 27.8 with a difference of 9.45. Then the intervention proved effective.

Major Findings of the Training

30% of the trainees could design lesson plans which were rated as 'A' grade plans. 50% of the lesson plans could come to the range of 'B'

grade plans. Only six lesson plans were rated as 'C' grade plans.

As regards classroom management, more than 70% of the trainees could design appropriate common activities satisfactorily and others needed modification. The skill applied by the trainees in respect of space management, seating style, grouping technique were found to be satisfactory with regard to learning organization. It was found that all the trainees were good at doing the same.

REDEFINING THE ROLE OF TEACHER EDUCATORS FOR QUALITY ELEMENTARY EDUCATION

Dr. A. R. Sasikalaa

Principal, Adhiparasakthi College of Education,
G. B. Nagar, Kalavai, Vellore District

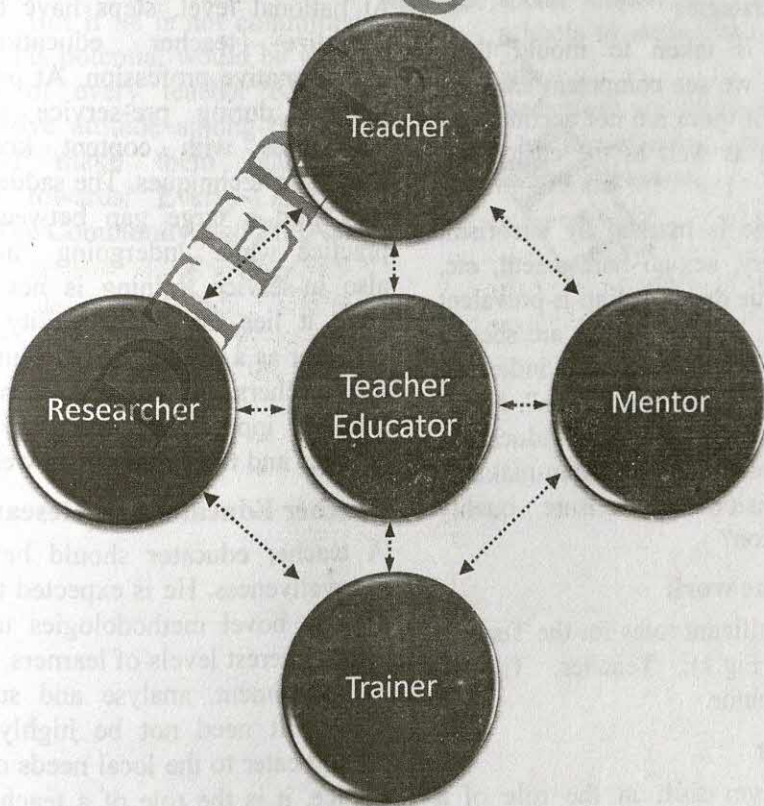
Teachers are the creators of all other professions like doctors, lawyers, engineers collectors, surgeons etc. On the other hand, the teacher educators are the creators of these teachers who mould several professionals. In this way, the role of teacher educators is very crucial for quality education at national level.

Rationale for the study

Teachers are supposed to serve two major purposes: one is to educate students in academic or cognitive skills and knowledge the other is to, develop individual and social skills and attitudes necessary to become a useful adult member of the society. To

accomplish these tasks, the key players would be the teachers, because they alone can develop attitude towards life. Now, in Tamil Nadu alone there are nearly 800 Teacher Training Institutes and 30 DIETs.

Nearly 10,000 Teacher Educators are deciding the fate of millions of future citizens, of course indirectly. The mushroom growth of Teacher Training Institutes causes concern among the public as well as eminent educationists regarding quality. The apprehension is that the quantitative growth may dilute the quality of the organizations.



Objectives

- ✧ To professionalize Teacher Educators
- ✧ To equip Teacher Educators with ethical, intellectual and emotional balance.
- ✧ To redefine the roles and responsibilities of Teacher Educators.

Present Scenario in Teacher Training Organisations

The NCTE has prescribed high academic and professional qualifications for teacher educators. Unfortunately they have no hands-on experience in teaching at elementary level. This is a great lacuna in the Teacher Education system as far as Tamil Nadu is concerned.

Secondly, the system takes care of only pre-service training at TTI level and pre-service and in-service training in DIETs. The present system caters to the needs of the student-trainees only in the following areas:

- Subject knowledge and
- Transactional strategies

No special care is taken to mould their personality. Hence we see competent teachers in schools but all of them are not accountable to their profession as well as the customers, i.e., students.

The global scenario is marked by terrorism, competition, bribery, sexual harassment, etc, and all sorts of value degeneration is prevalent all over the world. Teachers, who are second parents are to some extent, indirectly responsible for this “dehumanization”. Is this not high time that we, the teacher-educators, shoulder the responsibility of “Man-making” education our vision and ensure quality elementary education?

Conceptual Frame work

There are four significant roles for the Teacher Educators (See Fig.1): Teacher, Trainer, Researcher and Mentor.

Role as a Teacher

There is a paradigm shift in the role of a teacher from sheer “information-passer” to **learner facilitator**. “Learning is a process of

source-searching, collation of ideas, reflection and analysis and internalization” - (Position paper NFG on Teacher Education for Curriculum Renewal). Learner is a vibrant participant in the context. So the teacher should be supportive to learning.

In the new curriculum designed in Tamil Nadu the teacher has to provide practical experience to scaffold educational philosophy, policy and practices so that a trainee understands, analyses and assimilates-new knowledge. As a professional, the teacher needs to be endowed with adequate knowledge, competence, skills, attitude, commitment, enthusiasm, capable of reflection with proper perspective etc. Teacher educators must not only understand the paradigm shift but also “Own” it. This required well thought out orientation programme where they can understand their role alterations.

Role as a Trainer

At national level, steps have been taken to revitalize teacher education into a transformative profession. At present student-trainees during pre-service period enrich themselves with content knowledge and pedagogic techniques. The saddest part of it is, they find a large gap between theory and practice while undergoing “internship”. So also in-service training is not very fruitful. Here it lies the responsibility of a teacher educator as a trainer. It is for him to **motivate** the teachers, to **inspire** them to practice training inputs, and help to **sustain** the practice and to **evaluate** it as well.

Teacher Educator as a Researcher

A teacher educator should have interest in innovativeness. He is expected to ponder over various novel methodologies to suit various needs interest levels of learners. For that, he is to experiment, analyse and substantiate his theory. It need not be highly scientific. It should cater to the local needs of the learners. Hence, it is the role of a teacher educator to initiate and guide classroom practitioners to do experiments in order to enhance quality

learning. To accomplish this, a teacher educator has to play the role of a researcher.

As far as Tamil Nadu is concerned, there are number of Ph.D. holders in all the DIETs. They should take initiative in this regard and simplify research and make it reach every elementary school.

Teacher Educator as a Mentor

Mentor means wise and trusted adviser and helper as per Oxford advanced learner's Dictionary. "A pre-service teacher education programme needs to develop certain attitudes, disposition habits and hobbies in a teacher. A teacher's attitudes towards children and their problems, dispositions, such as tolerance, habits such as punctuality and habits of reading and reflection are important for developing reflective practitioners" (Draft curriculum Frame work for Teacher Education, 2006).

A teacher may be knowledgeable competent and efficient. But if he is not committed and accountable, his potential would be wasted. It is the duty of every teacher educator to develop positive attitude among the teacher-trainees and make them realize their commitment towards: Every Child, Their Profession, The Community, and The Nation.

Conclusion

Thus the teacher educators are to understand their new roles in proper perspective. They should professionalize their job by acting ethically. It helps to create a better world through understanding and development of human qualities.

To professionalise Teacher Educators, the Directorate of Teacher Education, Research and Training is to

- Conduct Induction Training to all the new Teacher Educators.
- Attitude Training is to be conducted to all the faculty members of DIETs and TTIs.
- Personality Development Programme should be conducted periodically.
- Values are to be incorporated in Diploma in Teacher Education Programme and inculcated among the trainees.
- Every Teacher Educator is expected to spend atleast two weeks in elementary schools to understand its functions, issues etc.

If these steps are taken, days are not far off, that teacher-educator would be kept in high esteem by the nation.

BRINGING QUALITY TO ELEMENTARY TEACHER EDUCATION

Dr. I. Muthuchamy

Reader, Department of Educational Technology,
Bharathidasan University, Tiruchirappalli - 620 002

Quality in education is generally associated with talent, dedication, hard work, rigour and some other notions valued by the society.

The movement towards quality in the field of elementary teacher education at every level is to pursuit of excellence and standards that will lead to achievement of high quality order on the part of teacher and learner. The main objective of the programme is each and every individual should have a thorough knowledge about the subject on their respective field of interest. Hence 'quality and quantity of knowledge' has been one of the major concerns at all levels of education in general and elementary teacher education in particular. Effective elementary teacher education is a prime requirements in the realization of quality education, not only for pre-service teacher education (PSTE) but also in-service, field interaction and co-ordination programmes.

Role of Teachers

Quality in education depends upon the quality of its teachers. According to V. S. Mathews, "No system of education, no syllabus, no methodology, no textbooks, no technology can rise above the level of its teachers. If a country wants to have quality education, it must have quality teachers".

Teaching is neither passing on information nor keeping students passive in the classroom. Teaching is a purposeful activity. It is considered to be a pursuit that has the potentials to make the destiny of the people. The administrators, doctors, scientists, engineers and all other professionals are the proud products of a sound teaching order. Job of teaching is self-rewarding so far as experience, knowledge and emotional satisfaction is concerned.

A quality teacher is effective in realizing the goals of education. If he is creative, many more innovative teaching learning activities will be created by him to make the success rate of learners at the peak. Committed and competent teachers would ensure a sound programme of teacher education. Such teacher is one who is able to foster creative thinking, develop skills as well as instill a desire for lifelong learning among students.

Quality in Teaching Learning Process

To improve the quality in teaching, the teacher should adopt proper teaching methods that are most likely to bring the desired result in students. The teacher has to create appropriate environment, which is more conducive to learning in and outside the classroom. He should commend over a variety of innovative teaching techniques, developing appropriate strategies, materials and aids in order to improve the process of teaching - learning at classroom. Further, he should know the development, application and evaluation of systems, techniques and aids for classroom teaching more perfect, fruitful and to sustain interests among learners. He should also know where to apply them and how to use them in profitable manner. A good teacher can be ineffective with an unsuitable technique. A good technique can be unless in the hands of a teacher who does not know how to use properly and creatively. Thus, the teacher is to use a variety of teaching techniques according to his abilities, interests, experiences and learning environment.

Quality in Evaluation

Teachers, the direct agents in the process of education, process of evaluation, students with good moral character, right attitude, right tastes, sound knowledge and worthy

capacities. He can influence the students and direct them to move on the right direction. The education commission has rightly said that "the future of India is now being shaped in her classroom". The achievement of students learning is measured through well-defined assessment whose purpose is to assess and provide feedback on student learning so that he can improve the continuous feedback will be useful to the learner and also to the teacher so that he can change the methodology to ensure learning of students, because of his vision of total quality control, have a clear commitment to the quality improvement process, communicate quality message, lead innovation within their institution, adopt appropriate mechanism for monitoring and evaluation and so on.

Quality dimensions in teacher education

The National Council for Teacher Education (NCTE) has rightly specified that every teacher education institution should have the following resources and facilities (physical, human, material, technological) in order to maintain and enhance quality teacher education. The task of ensuring quality in teacher education are

- Technically qualified teachers
- Minimum campus area, infrastructure
- Superstructure building, adequate classrooms
- Various laboratories (Psychology lab, Educational technology lab, work exp. Lab, Computer lab and Course specific laboratories for science, social science, language)
- Library cum reading room
- Equipment & furniture
- Well designed curriculum
- Sufficient teacher - student ratio
- Inspiring materials
- Adequate working days
- Environment building and so on.

For fostering the improvement in the quality of teacher education, the afore said requirements are quite adequate in achieving the objectives of teacher education. Thus, the above minimum specification are needed in order to achieve quality, and to ensure quality education to students by providing satisfactory educational experiences. Here, the main focus is on the above input factors based on the assumption and proven processes will lead to satisfactory output. The better results and the improvement in them about:

- Confidence building
- Creative thinking
- Active learning
- Higher achievement
- Initiatives of innovative methods, materials, aids
- Initiatives of new type questions
- Students support services and activities
- Team spirit.
- Value development
- Community services
- And other healthy practices, including internship in teaching - practicals related to optional, community, projects and experiments.
- Pre-training observation, training, evaluation, feedback and other follow-up inputs.

Quality is good when students achieve their potential by following a well organized and challenging curriculum in a supportive learning environment with appropriate assessment and feedback. The above mentioned initiatives determine the quality. Every teacher education institution may be taken a serious effort in implementing and enhancing quality teacher education programme of their own levels. The development of teacher education deserves support, plan and developing linkages among the institutions, between the institutions, parents, and community would make the teacher education system - a better system in the country.

INNOVATIVE TEACHER EDUCATION PROGRAMMES

K. Balasubramaniam

Senior Lecturer, DIET, Thirumoorthi Nagar, Coimbatore Dt.

DIETs are connected with the quality aspect of elementary education. Pre-service branch produces future teachers who would be engaged for 30 to 40 year of their life in teaching throughout Tamil Nadu. The foundation for the future teaching potential is laid in DIETs. The In-service Branch of DIETs trains working teachers. So the teacher education programmes at DIETs - both for students and lecturers have a bearing on the quality of elementary education. The teacher education programmes at DIETs should be relevant to the changing, innovative trends in elementary schools.

Present changes in the elementary education

1. At present, from this academic year 2007-2008, in primary schools for Std I to IV text books have been mostly dispensed with and any they have been replaced by activity based learning cards.
2. For Std V only text books are used.
3. Active Learning Method (ALM) has been introduced for Std VI, VII & VIII.
4. Graduates with B.Ed., are appointed for Std VI, VII & VIII.
5. Mostly women teachers are appointed as teachers from Std I to V.
6. English has been taught from Std I by the Govt. realizing the importance of Spoken English due to globalization.

Problem and suggestions for some of the Innovative Teacher Education Programs

Taking into consideration the above changes in elementary education, teacher education programmes should also adopt innovative, need-based curriculum, source book, teaching practice, internal evaluation & question papers.

The following innovative teacher education programmes are suggested for the above-

mentioned changes in the elementary education.

1. The pre-service students have to teach through ABL and ALM methods, when they are appointed as teachers. Also when the pre-service students go for the teaching practice they should have knowledge of ABL and ALM. So ABL and ALM may be introduced in the DTE syllabus.
2. It is said that lesson plans are not necessary for ABL. But DTE students write lesson plans for teaching practice during the first and second year. Their lesson plans become irrelevant for Std I to IV in the ABL classroom situation because they can't take the classes as per the lesson plans. So, in turn, source books, question papers, internal assessment, teaching practice have to changed, keeping in view the ABL methodology. TLM preparation for teaching practice also becomes unnecessary by the introduction of ABL cards. DIET Lectures and Senior Lectures should also know thoroughly about ABL and ALM.
3. As more women teachers are appointed for primary classes, more seats may be allotted for women during DTE admission. Girls education, women's empowerment, gender equality may be stressed in the syllabus.
4. Spoken English should be given more importance. For English language education, the source book, the internal assessment, teaching practice and the question paper all should be changed, keeping this in view. The students learn phonetics in theory but he/she is not able to put it in practice. He/she doesn't have the adequate exposure or language habit for correct

pronunciation. The two years of English teaching, testing should enable the teacher trainee to improve his/her fluency of English and correct pronunciation. In internal, assessment, there is testing of Aural Oral skills. But they are also submitted in written form. So in the changing context, more activities with focus on Spoken English should be introduced in the source books, teaching practice, internal assessment and question papers for English Language Education.

5. There are seven branches in each DIET. For each branch there can be a guiding Head Branch at DTER, with an Assistant Professor, a team of Lecturers and an expert. This guiding head branch can conduct seminars, group discussions, workshops, brain-storming sessions for innovative activities in that branch. All the DIET faculty of each particular branch can take part in these programmes, so that uniform, practical, innovative programmes can be taken up in each branch. The seven branches are not separate, water-tight compartments. They can be made to come into contact with one another and co-ordinate for certain programmes and activities. Then all the seven branches will become active and lively. There are several roles and responsibilities mentioned for each branch in the guidelines.

6. The last but not the least is, in newspapers of late, we come across so many incidents of immoral behaviour in schools.

So value education, yoga, and meditation like art of living, Vedanthiri Maharishi's ideas. Isha Yoga, Maha Sri Yogam by Universal Peace Foundation-Thirumoorthis hills, which teach spiritual ideas beyond religion, scientifically, may be seriously implemented as part of Innovative Teacher Education Programme. At present only physical education lecturers teach yoga. Mostly they are taught only as physical exercises. So the

above spiritual organizations may give training to all DIET Lecturers including the Physical Education Lecturer. The physical education lecturer, in turn may take the responsibility to impart them to the future teaching community i.e., the DTE students.

Research Functions of the DIETs

Teacher Education programmes should include Innovative District Specific training programmes like Theme Specific Training for teachers, computer trainings, both basic and advanced and Research - oriented trainings like Action Research, Research Methodology. DIET lecturers have done lot of action researches and a team of DIET Principals approves them. Inter- DIET seminars are conducted at regional level and experts are invited for these seminars. Linkage is developed among the DIETs of the region. The innovative ideas presented at the seminar the concerned authorities, so that the ideas become actions. Research projects for Rs.30,000 to Rs.40,000 are given to individual DIET lecturers. The lecturers become researchers in the current issues of interest, which is also a contribution to the quality of elementary education.

Lab Schools

Lab-school is another innovative teacher education programme. Each DIET lecturer has to adopt a primary / upper primary school in the district and suggest and carry out innovative programmes, activities both academic and administrative to improve the quality of education in the school. This gives an opportunity for the lecturers to put into practice some of his/her theoretical ideas, his/her visions dreams etc.

The Principal is responsible for both Academic and Administrative issues. He/She should not be a confused person with a lot of tension all the time but a calm, clear person with noble vision and mission to carry out the teacher education programmes successfully.

INNOVATIVE TEACHER EDUCATION

Mrs. M. Suganthi

Lecturer in Education, SRM School of Teacher Education & Research,
SRM University, Kattankulathur

Universalization of elementary education is a problem of national importance. It is universally acknowledged fact that an educated and enlightened citizenry is an essential condition for the successful functioning of a democracy. Education, at least up to the elementary level, is considered for every individual in a democratic country.

Elementary/Primary education is considered as the first stage of the entire super-structure of educational setup in India. It is the primary stage of education where foundation of child's physical, mental, emotional, intellectual and social development is laid. There is no denying the fact that the nation's strength rests on the sound foundation of its people. But it is primary education, which helps in removing mass illiteracy, thus making the most significant contribution to the efficient functioning of democratic institutions. India has entered 21st century and modernization of social structure and development of science and technology is a must.

Hurdles in Elementary Education

Elementary Education should be ensured that free and compulsory education of satisfactory quality is provided to all children up to 14 years of age, before they enter the 21st century. Below are some of the hurdles:

1. Formal system of education have become very costly and time consuming.
2. There is heavy wastage and stagnation.
3. Dropout rate is still alarmingly high.
4. Equity and equality could not be achieved through rigid formal system of education.

A new centrally sponsored scheme of Restructuring and Reorganization of Teacher Education was launched in 1987-88 which primarily envisages establishment of DIET to provide pre-service and in-service training to

elementary school teachers and to AE and NFE personnel.

Steps for Quality Improvement

1. Micro Teaching

Micro-teaching is one of the most recent innovations in teacher education programmes which aims to modify teacher's behaviour according to the specified objectives. Educationists in our country have recently recognized the importance of micro-teaching in preparing efficient classroom teachers.

2. Team Teaching

Team teaching is one of the most important innovations developed in USA to improve teaching-learning process in the classroom. Team teaching has been defined as 'a type of instructional organization, involving teaching personal and students assigned to them in which two or more teachers are given responsibility working together for all or significant part of the instruction of the same group of students'.

3. Classroom Interaction Analysis

It is widely acknowledged that knowledge about classroom interaction analysis is very helpful to the practicing teacher to modify his behaviour and to make his teaching more effective and meaningful.

4. Action Research for Quality Improvement in Teaching

Action Research helps the teachers, examiners, administrators, managements, etc., to analyze the problems and improve them on constructive lines. It aims at solving problems of educational institutions relating to curriculum, textbooks, methods of teaching, system of examination, discipline, co-curricular and extra-curricular activities or other psychological, sociological, physiological problems.

5. Computer-based Instruction

The computers are certainly very powerful instructional media that enhance quality of instruction. By programming the subject of study in computers, teaching and learning become full of contexts and situations. The student can take his own time to learn the contents because they are individualized instructional situations. The performance of the student in instruction as well as in test will be automatically recorded in the computer.

6. Internet and Virtual Learning System

The word 'Internet' means international network. The Internet is a network of many computers in the world that work together to provide information. The Internet is called by different names, namely The Net, Information Super Highway, The Web, The Matrix, The Electronic Frontier, The Data Sphere etc. To facilitate communications, the internet connects computer in different parts of the world. Nowadays many people all over the world use internet.

Today internet plays a leading role in day affairs of the society in all human activities including education. Internet is used for all information processes, especially educative purposes in different ways. Teaching and examinations are now popularized through internet facilities. Internet has become even a measure of culture and style of living. No other communication system in the world has become so prominent as internet.

7. Development of Self-education

A person's psychological potential is very great and the chances of self-education are infinite. Self-education is not an end in itself, but many people recognize the satisfaction or joy that can be aroused out of self-activity or self-education.

8. Work-oriented Education

In the new approach the gap between the world of work and the world of learning is

sought to be bridged. Education is not only to stimulate thought but also inculcate skills for improved action. This co-ordination between thought and action is sure to generate a two-way process resulting in improvement in both.

The improved work-oriented education programmes may take up more sophisticated and refined work situations and the co-ordination of the community resources is highly needed because it is hardly possible to equip all necessary work arrangements or trained practices. Therefore, such co-ordination of parents, teachers and community agents will have to be forthcoming for the success of an educational enterprise of the kind.

9. Work Integration as Educational Strategies

Work-integrated education is a link between instruction and practical construction. The pupil's participation in actual work enterprise enables them to acquire concrete experiences and teaches them how to apply their knowledge. In the course of work and labour, work skills are formed, developed and perfected.

Conclusion

While teacher education programmes are expected to do their best to prepare good teachers and to help serving teachers improve their skills, their success in achieving these objectives depends on how teacher's effectiveness is assessed and on whether the qualities required in teachers for effective performance of their work are those which have been developed in their teacher education programmes.

It may be again concluded that implementing such innovative methods in teaching will improve the achievement level of teachers raise their motivational levels effective teaching of concepts and provide joyful learning experience which is the need of the hour.

FORMULATING THE QUALITY OF EDUCATION SURMISE THROUGH THE PRE-SERVICE TEACHERS' PRESENT KNOWLEDGE AND ATTITUDE TOWARDS IT

Dr. P. Jayaraman

Senior Lecturer, DIET, Perundurai

Introduction

Legislation dealing with inclusion has had a major effect on how pre-service students with present needs are accommodated in the pre-service and also they execute their new learning skills like IT in the classroom in future. However, there are many things that cannot be legislated, one of them being the attitude of teachers towards IT and their knowledge.

The purpose of this study is to examine the effects of pre-service students' knowledge and their attitudes in an IT and computer education program with present needs to improve the quality of elementary education in line with developed countries. Although there has been research involving the effects of professional development and IT experiences on teachers' attitudes toward teaching special needs children, there has been little research on how this type of educational setting influences how pre-service teachers perceive inclusion. Their attitudes are critical to the success of inclusion.

Methods

The subjects for this study are 102 pre-service students, at DIET Perundurai, who are studying second year D.T.Ed. Course. The study is conducted the last week in July by administered the following two tools viz. 1. Attitude Scale for measuring Pre-Service Students' attitude toward IT and 2. Achievement test for assessing the pre knowledge about Computer and IT education

on the above said sample. The first is a 35-statement (22 positive items + 13 negative items) Likert-type attitudinal instrument, adapted from Balasubramanian and Jayaraman (2007), consisting of a four-point scale (internal consistency reliability of 0.595). The range of possible scores is -1 to 70, with high positive scores indicating a more positive attitude where as high negative scores indicating a more negative attitude. The second is a 15 questions in object type related to IT and computer education. This scale covering 7 subjects viz. 7 dimensions are:

1. Affective (6),
2. Perceived usefulness (6),
3. Perceived control (6),
4. Behaviour (4),
5. Self awareness (5),
6. Time management (3) and
7. Social ethics (5).

Results/Conclusions

A descriptive, a series of F-test among students at four groups viz. 1. science, 2. arts, 3. vocational and 4. computer science and t-tests between 1. female and 2. male at computer knowledge level and at 7 dimensional level is used for the data of the surveys to determine if the experiences in the outdoor classroom had an influence on the pre-service teachers' attitudes toward inclusion.

Of the computer knowledge test and attitude test that are surveys, scores for which the descriptive and inferential statistical analysis administered as follows:

Table -1
Descriptive Statistical Analysis

	+2 mark	Computer knowledge	Affective	Perceived usefulness	Perceived control	Behavior	Self awareness	Time Management	Social ethics	Total
Mean	976.43	44.12	42.16	69.28	27.86	42.52	35.2	26.63	46.67	41.47
Std. Error of Mean	13.000	1.345	2.937	2.342	2.484	2.427	2.75	3.294	2.685	1.626
Median	1013.5	44.44	41.67	75.00	25.00	37.50	40.0	25.00	50.00	42.68
Mode	1034	44	42*	83	0	38*	30	17	50	36
Std. Deviation	131.29	13.58	29.66	23.65	25.08	24.51	27.8	33.27	27.11	16.41
Variance	17237.51	184.4	879.8	559.6	629.1	601.0	773.	1107.	735.3	269.5
Skewness	-1.545	.144	-.198	-.974	-.286	-.163	-.154	-.098	-.533	-.041
Std. Error of Skewness	.239	.239	.239	.239	.239	.239	.239	.239	.239	.239
Kurtosis	2.131	.147	-.587	.485	-.048	.100	-.105	-.012	.539	.188
Std. Error of Kurtosis	.474	.474	.474	.474	.474	.474	.474	.474	.474	.474
Range	623	67	125	100	125	125	130	167	140	87
Minimum	500	11	-25	0	-50	-25	-40	-67	-40	-3
Maximum	1123	78	100	100	75	100	90	100	100	84
Sum	99596	4500	4300	7067	2842	4338	3590	2717	4760	4230
Percentiles: 25	938.25	33.33	25.00	58.33	8.33	25.00	20.0	16.67	30.00	30.51
50	1013.5	44.44	41.67	75.00	25.00	37.50	40.0	25.00	50.00	42.68
75	1070.5	51.39	66.67	83.33	50.00	62.50	50.0	50.00	70.00	51.58

* Multiple modes exist. The smallest value is shown

From the table, 1) the mean scores of the perceived usefulness is high where as the perceived control and time management is low, 2) The value of skewness w.r.t. areas is

negative shows that the students' high ability and 3) The value of kurtosis w.r.to areas is less than 2.69 shows that the flat one.

Table-2

Tests of Between-Subjects Effects - Dependent Variable: computer knowledge

Source	Type II Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	6287.091 *	3	2095.697	16.638	.000
Intercept	198529.412	1	198529.412	1576.142	.000
Group	6287.091	3	2095.697	16.638	.000
Error	12343.991	98	125.959		
Total	217160.494	102			
Corrected Total	18631.082	101			

* R Squared = 0.337 (Adjusted R Squared = 0.317)

The F- value shows that there is a significant difference among the mean scores of four different groups of students viz. 1. science, 2. arts, 3. vocational and 4. computer science in

terms of computer knowledge. This result shows that the mean scores of the computer science group students is found to be more than other groups.

Table-3

Tests of Between-Subjects Effects - Dependent Variable: 7 dimensional attitude scale total

Source	Type II Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1247.752 *	3	415.917	1.569	.202
Intercept	175450.211	1	175450.211	661.904	.000
Group	1247.752	3	415.917	1.569	.202
Error	25976.767	98	265.069		
Total	202674.731	102			
Corrected Total	27224.519	101			

* R Squared = 0.046 (Adjusted R Squared = 0.017)

The F- value shows that there is no significant difference among the mean scores of four different groups of students viz., 1. science, 2. arts, 3. vocational and 4. computer science

in terms of 7 dimensional attitude scale total. It shows that the attitude of the science group students have slightly more than other groups.

Table-4

Independent Samples Test at Computer knowledge

	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		t-Test	df	Sig. (2-tailed)
			Lower	Upper			
Computer knowledge	1.69	2.717	7.079	3.700	0.622	100	0.535

The t- value shows that there is a significant difference between the mean scores of 1) female and 2) male students in terms of

computer knowledge. The result shows that the mean scores of the male students is more than the female students.

Table-5
Independent Samples Test at 7 dimensional attitude wise and total

	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		t	df	Sig. (2-tailed)
			Lower	Upper			
Affective	8.50	5.883	3.174	20.172	1.445	100	0.152
Perceived usefulness	4.35	4.721	5.020	13.714	0.921	100	0.359
Perceived control	6.11	4.989	3.788	16.010	1.225	100	0.224
Behavior	2.94	4.904	12.669	6.792	0.599	100	0.550
Self awareness	3.03	5.566	14.073	8.014	0.544	100	0.588
Time management	2.71	6.663	-15.928	10.509	0.407	100	0.685
Social ethics	2.78	5.427	-7.984	13.551	0.513	100	0.609
Total	1.87	3.285	-4.651	8.384	0.568	100	0.571

The t- value shows that there is a significant difference between the mean scores of 1. female and 2. male students in terms of attitude in 7 dimensions and total. This result shows that the attitude of the female students have slightly more than the male students.

Many students are afraid of using technology because they have never used it, and maybe do not want to try at all. Their negative attitudes toward computer use might result in their isolation from the modern world. For those

who are going to teach the next generation, it is more important to enrich themselves with computer skills, and to conquer the fear and anxiety of using computers, so that they could help their students prepare to use technology. The computer classes designed for pre-service teachers contributed to positive changes in students' attitudes towards computer even though the heavy workload in these classes caused some complaints and negative reactions.

INNOVATIVE TEACHER EDUCATION PROGRAMME

Mrs. P. K. Uma

Lecturer, Excel Teachers Training Institution, Komarapalayam

Education is not mere imparting or acquisition of knowledge in particular subject. Education should be training in logical thinking and should arrive at the right conclusions besides imparting knowledge.

New approach

'Education is the most important invention of mankind'. Man without education would still be living just like an animal. It is education, which transformed mankind from a mere two legged animal into human.

The word "education" is like a diamond which appears to be of a different colour when seen from different angles. The concept of education is dynamic.

In Latin we find the word, *educate* means to 'lead out, to bring up, to rise',

Teacher programme has to be designed and administered in such a way that each individual has to develop to the fullest extent of his abilities potentialities and to develop an attitude to put these abilities into the service of others.

The innovative teacher programme helps mankind to evolve an orderly way of life for self and the growth of an enlightened personality, adopting the new trends emerging in the present hi-tech world.

A collective mechanism of:

- i. participation in the on-going teacher experience sessions
- ii. formal and informal discussions with the concerned faculty members of institutions, interactive sessions with the student - teacher observing different student teacher activities.

Reason for Innovation in teacher Education Programme

People are drawn to teaching for many reasons:

1. the desire to teach emerges early and is nurtured by positive experiences,
2. teaching is seen as a way of making a significant contribution to the world and experience the joy of helping others grow and develop, and
3. life as a teacher is exciting, varied and stimulating.

The desire to work with young people is the most cited reason teachers give for choosing their profession.

Value education

For *Rousseau* education is guidance. The teacher should be an observer of the child's development rather than a giver of information, ideas.

A teacher is not a positive but a negative educator. He should be mere observer. He should give his scholar not verbal lessons. He should teach by experience alone.

The progress of a country depends upon the quality of its teachers and for this reason teaching is the noblest profession.

It emphasizes on development of specific knowledge, attitude, skills and behaviour patterns which an individual requires to perform a job adequately. If we train a teacher we develop those skills which are needed for him to be a qualified teacher/ great teacher.

The purpose of training is to bring excellence in the specific job for which the individual is being trained.

In the field of teacher education, many new trends and innovation have emerged in our country.

The primary challenges and learning goals are:

- To enhance the comprehension of new methods and development processes
- To carry out newer projects using the object-oriented development methodology

- To acquire communication, reading and writing skills
- To reflect, evaluate, explain and justify solutions concerning to esthetical issues

Objectives of Innovative Teacher Education Programme:

- To develop functional understanding of educational psychology and methodology among interns
- To develop skills in the planning of lessons and developing an ability of preparing, instructional material and teaching-aids
- To develop positive attitudes for continuous learning and keeping abreast with the latest of content and methodology
- To develop constructive and co-operative attitude towards students and the community
- To develop the skill of questioning, the skill of illustrating, the skill of demonstrating etc.

Objectives of Teacher Education Programmes

- To keep abreast with the latest trends in the knowledge of the subject
- To acquire theoretical and practical knowledge of childhood education
- To understand the major principles of growth and development of the children
- To develop understanding interest, attitude and skill which enable the teacher to foster the all-round growth and development of the student
- To develop communication skill, story telling, explaining and co-relating situation etc.,
- To develop a warm and positive attitude towards the growing children, their academic, socio-emotional and personal problems
- To understand the role of the school and the teacher in modernizing the society

The Teacher education being an on-going process needs to have three basic characteristics namely:

Flexibility

The task of the teacher is a complex one, involving continuous decisions growing out of his understanding and appreciation of the role of the school as well as changing social values needs and social problems.

Teacher Education is said to be very significant investment for bringing qualitative improvement in education. Any programme of qualitative change in education pre-requisites the improvement of teachers. The teacher has the crucial role in the development of the country.

Relevance

As the subject matter of education shifts from physical skills to intellectual activities, the teacher must make increasing use of symbols, consists of imparting information.

- ** The teacher as a model
- ** The teacher as a surrogate parent
- ** The teacher as a therapist
 - As a disciplinarian
 - As a task master
 - As a medicine, as evangelist, persuader, propagandist

Inter-disciplinary

Love for social justice, true patriotism, clean thinking, spirit of tolerance, impart of vocational efficiency. They must realize the dignity of life is in work.

To develop class room management, this is mainly connected with education and includes various functions such as discipline, control, keeping order, motivation and interest to learn among the students

Conclusion

Although it is not true that some people are born teachers. Their early life experiences often encourage them to move in that direction.

“Behind the decision to become a teacher is often the inspirational memory of earlier teachers to whom one continues to feel connected in a way that goes beyond the subjects that taught”.

Teaching is subject to a high degree of public scrutiny and control. The public appears to have great confidence in the work that teachers do.

In the 1970s for example, teachers were portrayed as incompetent, unprofessional, unintelligent and generally unable to live up to the public’s expectations.

“What makes someone a good teacher is not methodology or even ideology, it requires engagement with identity the way individuals conceive of themselves, so that teacher is a state of being not merely ways of acting or behaving”.

DTERT, Chennai

INNOVATIVE TEACHER EDUCATION PROGRAMME

Jai Banerjee

Lecturer, DIET, Sonepur-Saran, Bihar

The role of the teacher educator, for effective implementation of teacher education programme has undoubtedly increased manifold in the present global scenario. The education and training have a key role in addressing the need of the modern world. So teacher should be trained, accordingly.

In the near future India will have forty thousand trained graduate teachers and 2000 teacher educational institutions. These teachers not only perform their duties in in-service teaching / pre-service training but also they involve themselves in different educational activities. To be a professional personality these teachers have to be perfect in different techniques such as i) material development, ii) change in evaluation, iii) interaction with the community, iv) environment development for different activities in the institution, v) skill to generate resources, and vi) some innovative skills have to be developed to meet challenges for future. Undoubtedly, there will be a fast change in school curriculum. Keeping all changes in mind teacher educators should be technically sound so that they can professionally manage the problems and prove themselves a pillar for the departments as well as community members.

Demerits of Present Policy

Due to lack of proper policy in Teacher Education Institutions while imparting teaching material in pre-service, in-service in teacher's training programme, faculty members are not professionally sound. So, there is a lack of coordination of teaching materials from primary level to research scholars.

This grim situation need planned techniques of teacher education programme. Presently Teacher Educator must have an M.Ed. degree, but the curriculum made for M.Ed. does not match the need of the hour. Sometimes, it is

found that Educators having M.Ed. degrees have lack of confidence in imparting teaching material through scientific approach. Research and Innovation is the prime need for Teacher Educators. Educators must have the capacity to develop curriculum material and evolution process.

Present form of teaching material for Teacher Educators is insufficient in terms of quality and content. DIET, SCERT and Academic Staff College have also been working for many years. Still lots of things are to be done for imparting quality training.

Following suggestions can be useful in Teacher Educator Programmes:

- i) Short term course for Teacher Educator working in the Institution to acquaint with latest trend in education.
- ii) Special short term course for newly appointed faculty members.
- iii) Few such Institution have to be selected where sufficient infrastructure is present in terms of building and faculty members where an educator can be given different skills like orientation, on service education, research work and surveys, curriculum development, development of training material and experiments in Educational Technology.

Objectives of Innovative Training

- Special technique and skills to impart to future Teacher Educator.
- To upto date knowledge on relevant topics.
- To enhance knowledge on comparative Indian Social Context.
- To assess the problems related to Teachers, Teacher Training Colleges, School and community.
- To develop educational thoughts with special reference to third world and to prepare and rectify the education with the

help of educational research, needed for the society.

- To create capacity to incorporate the values laid down in Indian Constitution.
- To develop modern technology and innovative process in Indian context.

CURRICULUM

Compulsory

- Educational Philosophy
- Educational Sociology
- Educational Psychology including such medical researches that can play a change in education
- Research paper submission and practical work
- Comparative educational study of developed and developing countries

Optional

- Psychological service
- Education management, finance and employment

- History of Education and Education Technology
- Education for gifted children
- Educational experiment
- Inclusive education.
- Literature of education.

Expected Outcomes

Following outcomes can be expected in Teacher Education:

- ** Socially conscious teacher
- ** Teacher would have competency to redevelop/reproduce their educational experience and be able to understand the effect of education on society and vice versa.
- ** Able to understand the vital role of a teacher educator.
- ** The teacher can be able to act as a researcher in field of Education.
- ** Capable to develop new tests.
- ** Coordination between traditional and modern approaches of education.

INNOVATIVE TEACHER EDUCATION PROGRAMMES

D. Pugalenthil* and S. Anantha Soruba Santhi**

*Senior Lecturer, **Lecturer
DIET, T. Kallupatti, Madurai District

Teacher Education programme and institutions initiate teachers into the profession of teaching. The isolation of teacher education from schools does not promote either. The teachers quickly forgetting what they learnt during their teacher education, is not healthy. This makes a teacher education programme only a formality of a required certification. So there arises a need to emphasize the teacher as a professional, teaching as a profession and the teacher education as a professional course and their related roles considering needs, designed and executed by individual researchers and institutional agencies.

Teacher education institutions are the live laboratories which provide plenty of bases in which teacher education and researches in the departments of education should be greatly involved. But the structure of teacher education programmes continues unchanged, while the nature of the schools, the teachers and the teaching get changed with civilisational, cultural and technological changes in the society.

Recent Trend

The role of the teacher has undergone a great change. The teacher today has to play a very different role from that of his / her ancestors. The teacher of today is a facilitator - one who creates conditions for learning to take place, one who facilitates the process of learning. The learners are capable of taking care of their own learning; the teacher is a valuable catalyst, who ignites the spark. The recent trend is that the teacher has demanded a new robe, that of a mentor, whose main role is "caring and sharing".

Teacher Trainees

Of the eight examination papers for the DTE course, only one paper is on English language teaching and methodology and so it has to be

answered in English. But the other seven papers are in the regional language and so the teacher trainees find it easier to learn, teach and write in the regional language. On the other hand, they feel it is a herculean task to listen, speak read and write English. Despite their exposure to English for about 10 years during their schooling and also 2 years in the Teacher Training institute, they struggle to use English in their routine life.

Being a teacher educator the paper presenter tries to formulate new strategies for the development of effective teaching learning process among our teacher trainees.

Generally, there is a gap between teacher's use of the strategy for English language teaching and the students' preference for the communicative approach as the strategy for language learning. This gap could be filled in by adopting certain alterations and renovation the strategies.

Intervention Strategy

This could be done in two phases - readiness programme and the actual input.

Readiness Programme

- Speech therapy towards acquisition of English sounds.
- Sound discrimination through regular drill.
- Tongue controllers (Indian Context). For example: Babu bought bread and butter for his breakfast. Palani picked up popcorn packets from the platform.
- Encourage the learners to frame their own tongue twisters from the words listed. e.g.:

Sad	black	mad	bad
Fat	bat	man	cat

- ✓ black cat and mad man
- ✓ fat cat and sad man
- ✓ bad man and mad man

- ✓ fat cat and black cat
- ✓ fat man and black man

- As speech boosters, composite picture could be used and the students could be encouraged to express orally in words of fragments.
- Giving commands and instructions has a distinctive place in informal English and so a 15 minute programme could be executed everyday, in which individual and pair activities could be administered.

During the second phase, a collection of improvised materials like soap wrappers, biscuit packs, chocolate covers, sachets, shopping bills and train tickets could be used for conversing in English without any inhibitions.

Description Talking

A weekend period could be used for this activity. Talking about friends would lighten up the students' spirits. Each student comes forward and describes a person's physical appearance and also adds a complimentary statement. Others have to identify the person.

This activity could be extended to the identification of historical personalities prescribed in their social science books. Incidents and historical anecdotes also could be highlighted in the language class.

Everyday, a student has to come to the front and describe an animal or a bird or a scene. Pictures could be used as cues. Use of spoken language with words limiting to 5 letters and also sentence length of 8 to 10 words enhance the learning competencies of the learners.

Film Strips

A short film could be screened for the students to freely criticize the film. They could comment on the hero, heroine villain, story, background, theme, music or songs. Generally, teachers of English complain that their students refuse to open their mouths in English and virtually make no attempt to speak in English. But movies and filmstrips had a

tremendous impact on our DIET students. The feedback session was so innovative and energetic, for they were so much engrossed in the story, fairy tales, sound and music. Air Bud, Spy mate, Baby's Day out are some of the films that were screened for our DIET students.

Sandwich Stories

A sandwich story is one that is written or told with the target language items embedded in the students' mother tongue. Both western and oriental stories are chosen as raw material, if they prove to be educational, entertaining and developmentally appropriate. Then begins the preparation of the sandwich in a cumulative, step-by-step manner; the percentage of EFL items increases the tempo of the stories.

Generally, our students hate activities those require them to speak only English. By allowing them to use their mother tongue, wherever and whenever their English is inadequate, we ensure active participation. So the sandwich stories motivate the students to learn English and the participation of the students is more. Shakespeare's plays like 'Julius Caesar', 'The Merchant of Venice', some anecdotes from 'Ramayana' and 'Mahabaratha' were tried out and our DIET students enjoyed by actively participating in the session.

Product Oriented Strategy

- ✧ Action songs, rhymes, oral games, role play etc., are the motivational inputs fostering oral and comprehension skills. Performing arts also develop the listening and speaking skills.
- ✧ Use of specific language activities like advertisements, instruction, notices, magazines, enhance the learning of English.
- ✧ Puppetry shows also kindled the interest of the learners.
- ✧ Audio recording of cries of animals, birds and the sound of various objects enhanced the vocabulary of our students.

- ✧ Video clipping of a boy's birthday party and his visit to market, railway station, airport and so on highlighted grammatical structures, vocabulary, pitch, tone and intonation.

Dramatization

Dramatization and role play techniques are adopted to teach and learn the supplementary readers prescribed for the upper primary classes. Even some anecdotes from Geography, History and Science are converted into dramas. Babar and Humayun, Asoka and the Kalinga War, Star War Mock Parliament were some of the skills experimented by our DIET Students.

Action Songs and Rhymes

- ✧ Action songs and rhymes are not merely for recitation.
- ✧ An Indian child's earliest experience to English is through nursery rhymes. Our DIET students also have to teach these rhymes to the primary classes.

Many of these rhymes were written at a time when power rested with the monarchy in England to mock the Kings and queens and bring to light a certain social situation that existed in England. Jack breaking his crown, Jill tumbling down, Humpty Dumpty's great fall were alluded to the rise and fall of the monarchy. So the rhymes and songs depicting Indian scenes and setting would be a boon for our learners. The paper presenter has experimented this technique not only with our DIET students but also with the school children.

For example: Old Mac Donald had a farm could be modified like this,

I went to visit a farm one day,
I saw the sheep cross my way.
What do you think I hear them say?
A baba here ... a baba there
Here a ba ... There a ba
Every where a ba ba ba

Total Physical Response

Most of the activities of the teacher in an English classroom should be based on Total Physical Response with the TPR, the learners listen to their teacher, who tells them what to do and then do it.

Listen and Draw

This activity develops linguistic skills and also map skills with spatial awareness.

e.g.: The Pied piper

As the teacher tells the story, the students have to draw the route and also write words on their own maps.

The pied piper led the rats
Over the bridge
up the hill
down the hill
round the castle
along the road
out of the wood
and into the river

Newspapers

English newspapers could be used as an effective strategy for teaching and learning English. Grammar Learning could be a fun and an enjoyable activity. For example:

- Give the photocopies of the same page to groups of learners and ask them to identify the parts of speech.
- Use the advertisement clippings of household articles and teach them the degrees of comparison.
- Use the colourful clippings and drill them to use sentence structures like:
 - I like to buy a lap top computer. It cost Rs. 45,00/- (or)
 - I prefer laptop to LCD TV
- Make the students compare and contract certain news from the English and the regional newspapers.
- Rate news with photo clippings are cut and pasted in the scrap books.
- As the newspapers expose the learners to current usage of language and information,

it sustains the interest of the learners in learning.

Similarly riddles, idiomatic expressions, proverbs, rebus, anagrams, palindromes, homophones, homographs, homonyms etc., could be brought to the language class room. They could be displayed in the classroom. Such a collection would highlight the salient features of the language.

Remedial Strategy

In order to remove interference errors, the teachers could use error posters strategy chart with 3 columns - errors, correction and alternatives. Common errors that the learners make depend on their mother tongue influence and so the teacher has to update them regularly including new mistakes made by the learners.

Feedback

Feedback plays a vital role in the language. Learning process. It provides an opportunity for the learners and the teacher to reflect upon what they have been doing.

There are 2 kinds of feedback which focus on, (1) the language that is used (2) the way the learners have achieved the task and their behaviour both as individuals and as a group.

Feedback could be followed immediately after the learners have done an activity or at the end of a series of activity or on a fixed day each week or fortnight.

Conclusion

Learning a language is useless, if we donot know how to communicate, how to listen to others and how to speak and write so that the listeners and also the learners want to listen and read and be able to understand. It is inevitable in learning English which is the language of everyman. "Learn to speak in English". "Talk only in English" are torturing, clicked ring tones that have lost their connotation in today's classrooms. The implementation of ABL System and the present scenario demand good command of English among our teacher trainees. Hence, intervention strategy, product oriented strategy, expression - oriented strategy are some of the innovative teacher education programmes implemented and experimented by the paper presenter in the DIET of T. Kallupatti, and brought out the expected outcomes of using English in the daily life of our DIET students.

MENTORSHIP IN TEACHER EDUCATION

Guru Piyari

Principal, DIET, Kalayarkoil

Cambridge Advanced Learners Dictionary defines Mentor as a person who gives another person help and advice over a period of time and often also teaches them how to do their job.

Historical background of Mentorship

In Greek mythology, Mentor was the son of Alcumus and, in his old age, a friend of Odysseus. When Odysseus left for the Trojan War he placed Mentor in charge of his son Telemachus, and of his palace. When Athena visited Telemachus she took the disguise of Mentor to hide herself from the suitors of Telemachus' mother Penelope. (Odyssey Book II, lines 255 and 268.) When Odysseus returns to Ithaca, Athena (in the form of Mentor) takes the form of a swallow and the suitors' arrows have no effect on her.

The roots of the practice of mentorship are lost in antiquity. The word itself was inspired by the character of Mentor in Homer's Odyssey. Though the actual Mentor in the story is a somewhat ineffective old man, the goddess Athena takes on his appearance in order to guide young Telemachus in his time of difficulty.

Historically significant systems of mentorship include traditional Greek teacher-student, the guru-disciple tradition practiced in Hinduism and Buddhism, the disciplinary system practised by Rabbinical Judaism and the Christian church, and apprenticing under the medieval guild system. Famous mentor-protégé pairs include Socrates and Plato, Plato and Aristotle, Aristotle and Alexander, the Great.

The first recorded modern usage of the term can be traced in a book entitled "*Les Aventures de Telemaque*", by the French writer Francois Fenelon. In the book the lead character is that of a Mentor. This book was published in 1699 and was very popular during the 18th century

and the modern application of the term can be traced to this publication.

This is the source of the modern use of the word mentor: a trusted friend, counsellor or teacher, usually a more experienced person. Some professions have "mentoring programs" in which newcomers are paired with more experienced people in order to obtain good examples and advice as they advance, and schools sometimes have mentoring programs for new students or students who are having difficulties. Today mentors provide their expertise to less experienced individuals in order to help them advance their careers, enhance their education, and build their networks.

Mentorship refers to a developmental relationship between a more experienced mentor and a less experienced partner referred to as a *mentee* or *protégé*. A person guided and protected by a more prominent person.

Types

There are two types of mentoring relationships: formal and informal. Informal relationships develop on their own between partners. Formal mentoring, on the other hand, refers to assigned relationships, often associated with organizational mentoring programs designed to promote protégé development.

In well-designed formal mentoring programs, there are program goals, schedules, training (for mentors and mentees), and evaluation. Mentors inspire their mentee to follow their dreams.

New-Hire Mentorship

"For example, in some programs, newcomers to the organization (*protégés*) are paired with more experienced people (mentors) in order to obtain information, good examples, and advice as they advance. It is considered that new employees who are paired with a mentor are twice as likely to remain in their job than those who do not get mentorship"

High potential Mentorship

"In other cases, mentoring is used to groom up-and-coming employees deemed to have the potential to move up into leadership roles. Here the employee (*protégé*) is paired with a senior level leader (or leaders) for a series of career coaching interactions. A similar method of high-potential mentoring is to place the employee in a series of jobs in different areas of an organization, all for small periods of time, in anticipation of learning the organization's structure, culture, and methods. A mentor does not have to be a manager or supervisor to facilitate the process."

Need for Mentorship

Today we have competent and qualified teachers in every school. In spite of that many schools are 'labeled as low performing schools. The marked difference among teachers working in high performing and low performing schools is not in the level of their competency but in the level of their commitment to the profession, to the child, to the society, and to the institute. Many low performing teachers do not love even care to love their school, their colleagues, their wards and the public. This may be due to the fact that students are selected and admitted to the DTE Course on the basis of their scores at higher secondary level. They are not tested whether they have a flair for the profession or not. The result is students are pushed into the course by Adults for many other reasons including the High salary, Vacation, and little accountability etc. Hence our system teems with professionals who care only for their own advancement and who lack commitment which is a basic requisite for teaching profession. The only solution to this situation is those who do not possess commitment should be denied access or their attitude should be changed during the training period by imbibing necessary moral, ethical values in them. This attitudinal change and implanting values is possible only through well designed mentoring programmes.

Mentorship in Teacher Education at trainee level

At DIETs, Students transform themselves from the nonchalant youth to responsible

adult. It is the period of transition, transition from an irresponsible student to responsible teacher, from a protected ward to a protector. So far he has learnt contents, now he needs to observe and explore the society. He identifies the problems and works out feasible solutions. From an independent and careless adolescent he transforms into a socially responsible and useful member. No longer simple rote memory will get him good grades in the examination. This requires new skills to be developed, he needs shaping, and moulding in the hands of his tutors. Besides, many youth for the first time leave their parents and live in hostel. It becomes necessary to develop their social skills.

Mentorship in teacher education can be both formal and informal. As the course is most often a residential one informal relationships is likely to develop on their own between partners who are room-mates. The compatibility of mentor and mentee is a factor that should be taken into consideration when choosing pairs. Mentors and mentees may benefit from having similar backgrounds, interests and life experiences.

Peer mentors may assist newly admitted students with time management, study skills, organizational skills, curriculum planning, administrative issues, test preparation, term paper preparation, goal setting. Formal mentoring, on the other hand are the assigned relationships, associated with organizational mentoring programs designed to promote protégé development

Tutorship and Mentoring

Each student is assigned with a Tutor who is a faculty and made responsible for the students all round development. The tutor should, by virtue of his behaviour and setting, a live model should attract the student, and win the mentees' confidence. He can guide the ward in his projects, assignments and reference works. He can give the pupil a social and moral support and prove his concern for the youth under his care. Once the pupil is enraptured by the Tutor, it will be very easy to imbibe and

nurture the desired values in the trainee and mould him to suite the profession.

Qualities of Mentors

1. Be a role model
2. Have good leadership qualities
3. Have good social Skills
4. Have good communication skills
5. Evince expertise in academic activities
6. Demonstrate has concern for the ward
7. Be good at guidance and Counseling
8. Should cherish and practise values
9. Should loves his institute and take pride in being a useful member of the same
10. Should love his profession

Advantages of Mentoring

Mentors also stand to benefit from the mentor/mentee relationship. Mentoring gives mentors a chance to sharpen their social, communication and leaderships skills. Mentors develop friendships through their participation in mentoring programs. Mentors also benefit from the satisfaction of helping a younger student, and possibly shaping a young students life in a positive way.

Peer mentoring

Peer mentors in DTE Course aid in the transition of younger students from secondary school to professional institute. They may assist mentees with their class work and study skills, peer pressure (such as pressure to use drugs or have sex), issues with attendance and behaviour, and typical family problems. Peer mentors for youth may simply be a person for the younger child to spend time with. Mentoring programs for youth can be especially useful for students who are suffering from a lack of social support, and may be susceptible to delinquency.

Peer mentors may assist newly admitted students with time management, study skills, organizational skills, curriculum planning, administrative issues, test preparation, term paper preparation, goal setting, and grade monitoring. Additionally, such mentors may

provide other forms of social support for the student, such as friendship, networking, and aiding the student's adjustment to college life.

Advantages of peer mentoring at DIET level

There are many advantages of peer mentoring for the mentor and the mentee alike. Peer mentoring may help new students adapt to a new academic environment faster. The relationship between the mentor and mentee gives the mentee a sense of being connected to the larger community where they may otherwise feel lost. Mentors are usually students in the second year, so they can share useful knowledge and experience that is otherwise difficult to obtain. Mentors are chosen because they are academically successful and because they possess good communication, social and leadership skills and in them have the making of a good teacher. As a consequence, mentors serve as positive role models for the students, guiding them towards academic and social success. Mentors provide support, advice, encouragement, and even friendship to students. Peer mentoring may improve student retention rates.

Youth mentoring

Youth mentoring is the process of matching caring, concerned adults with young people who may be at risk. The adult is usually unrelated and works as a volunteer through a community, school or church based social service program.

The Red ribbon club in the DIETs and the volunteers from the community preferably a health department person guides them in developing life skills.

The Psychological guidance and counselling wing of the DIET can contribute much in Youth mentoring.

Advantages of youth mentoring

This helps to protect the adolescent from being misguided by peers or anti social elements. This provides them an insight into life and protect them from being abused. This besides

developing positive attitude and confidence in the youth helps him to grow into a more responsible, happy and healthy citizen

Some mentoring programs

The DIET level Mentor Program helps incoming students adjust to the institute. The program gives new students a way to develop special bonds with DIET faculty, staff and fellow students, enhancing their first year at DIET. New student mentees meet their Mentor team and fellow mentees during new-student orientation, when the Mentor Program hosts a reception to welcome new students and their parents to campus.

Throughout the year, activities between mentors and mentees can vary depending upon the interests of people in each mentee group. Typical examples of small-group activities include meeting regularly for lunch, dinner or study sessions; Planning and running hostel Club activities, Projects based on Co operative learning techniques, Hobbies, Peer group activities, Micro teaching, Exploring the environment, Field trips, Tours, discussions, debates, brainstorming sessions. The

underlying purpose of any activity is to help new students feel connected to the DIET community and to make the first year a positive one.

Mentorship in Teacher Education at working level

Every newly recruited entrant teacher may be associated with a senior teacher for a period of a month when he simply observes and studies the functioning, of the various components in the system. He is introduced and acclimatized to the tone and decorum of the new working environment and understands what is expected from him as a teacher by the pupils, by the parents, by the colleagues and by the higher ups. He can then conveniently choose the area or assignment where he can bring out his best contribution for the improvement of the school. Learning from peers makes him more comfortable than being instructed by higher officials. This will certainly help him develop a bond with the institute which is very much lacking among today's teaching community in low performing schools. Mentoring is also the cheapest way to train an employee.

MENTOR TUTORING PROGRAMME

Mrs. Merritta Adeline* and Mrs. Mary Kanaga Saratha**

*Lecturer, **Principal i/c

CSI College of Education, Pasumalai, Madurai

Introduction

Teaching may be the only skilled profession that does not routinely provide training to its novice practitioners. New faculty members have traditionally had to learn by themselves how to plan, identify and present in an effective manner in teaching. They also had to teach themselves how to devise stimulating teachers and rigorous but fair assignments and tests, how to motivate students to what to learn and how to make them active participants in the learning process, and how to help them develop critical problem-solving, communication and teamwork skills. Perhaps hardest of all, they had to figure out how to balance the competing time demands of teaching. Both experience and common sense suggest that appropriate mentoring and support can cut years off the professional learning curve.

Mentoring is itself a skilled and complex craft, however, and when poorly done it may do more harm than good. This article offers a model for effective faculty mentoring.

Definition of Mentoring

The term mentor generally indicates teacher, adviser, sponsor, counselor and role model. Merriam (1983) described mentoring as "a powerful emotional interaction between an older and younger person, in a relationship in which the older mentor is trusted, loving and experienced in the guidance of the younger."

Mentoring is a personal relationship in which a more experienced (usually older) faculty member or professional acts as a guide, role model, teacher and sponsor of a less experienced (usually younger) graduate student or junior professional. A mentor provides the protégé with knowledge, advice, challenge, counsel and support in the protégé's pursuit of becoming a full member of a particular profession. Mentorship may

incorporate a wide range of roles (e.g. teaching, advising, supervising, counseling, friendship), yet the whole is clearly more than the sum of these parts.

Functions cluster within two primary domains: the career and the psychosocial. Career functions are typically focused on career development and include aspects of the mentorship that enhance 'learning the ropes' and preparing for advancement.

Formation of the Mentor Relationship

Characteristics of Ideal Mentors

Literature on mentoring indicates that effective mentors (those highly rated in student surveys) possess specific personality characteristics and interpersonal traits (Blackburn *et al.*, 1981; Clark *et al.*, 2000; Cronan-Hillix *et al.*, 1986; Gilbert, 1985; Sanders and Wong, 1985). In terms of personality, desirable mentors are intelligent, caring and appropriately humorous. They are flexible, empathetic and patient. Like good psychotherapists, good mentors are interpersonally supportive, encouraging, and poised. They appear to exude 'emotional intelligence' (Goleman, 1995). In addition to demonstrating these qualities, highly rated mentors are ethical (Kitchener, 1992), psychologically well adjusted (Cronan-Hillix *et al.*, 1986), intentional role models (Gilbert, 1985) and well-known as scholars and professionals (Blackburn *et al.*, 1981; Sanders and Wong, 1985). In essence, excellent mentors are kind, healthy and competent. Mentors describe reaping extrinsic rewards, such as accelerated research productivity, greater networking and enhanced professional. Intrinsic benefits include enhanced career satisfaction, rejuvenation of creative energy from collaboration with protégé's and a sense of generosity.

Increasing the prevalence and quality of mentoring in the profession of psychology. First, professional organizations can allocate more attention and resources to the science and practice of mentoring by establishing awards for outstanding mentors. Research on mentoring sponsor continuing education, assessment of mentoring in important features of graduate education student-faculty interactions, practice recommendations and ethical guidelines unique to forming, structuring and managing mentorship.

Prepare Faculty for the Mentor Role

New faculty cannot be expected to fully understand the form and function of mentorships. Graduate programmes should consider methods for intentionally preparing faculty for their role as mentor to graduate students (Bigelow and Johnson, 2001).

These methods might include a formal orientation with senior faculty mentors workshops relevant to mentoring and ongoing supervision of mentorships (by seasoned faculty leaders) during the pre-tenure phase of employment. At the least, educational components of orientation should include examples of successful mentorships, mentor functions (Kram, 1985) and strategies for handling ethical dilemmas or conflicts in the mentor role.

The mentor relationship is one of the most complex and developmentally important, a [person] can have in early adulthood... No word currently is use in adequate to convey the nature of the relationship we have in mind here... Mentoring is defined not in terms of formal roles but in terms of the character of the relationship and functions it serves.

Mentoring Leadership and Resource Network

- To provide an organizational vehicle for a mentoring initiative.

- To increase the knowledge base and general awareness of best practices in mentoring and induction.
- To promote and provide effective training for new teacher mentors.
- To establish mentoring of new teachers as the norm in schools.
- To establish through mentoring, the norms of collegiality, collaboration and continuous professional development in schools.

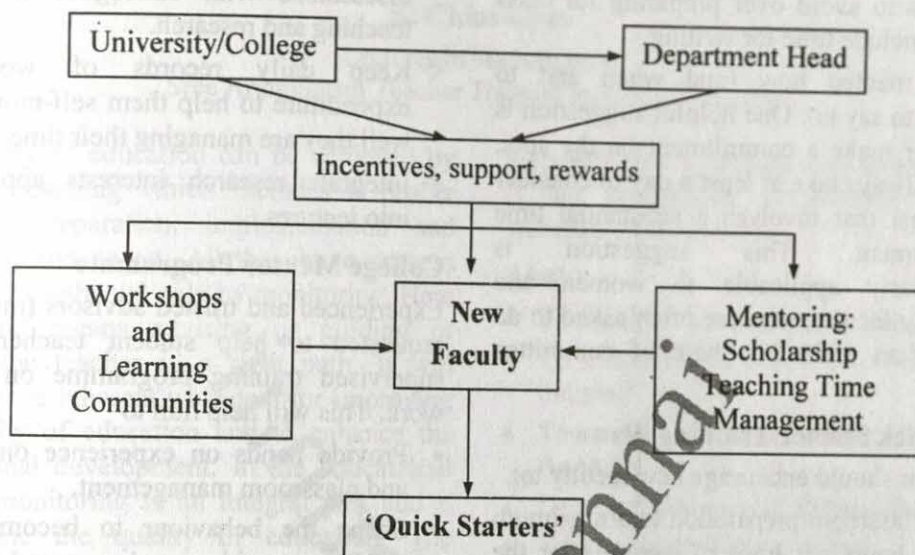
Five triggers for stress in new faculty

1. Insufficiency of time
2. Inadequate feedback and recognition
3. Unrealistic self-expectations
4. Lack of collegiality and
5. Difficulty balancing work and life outside work.

Scheduled regular time for writing (usually daily) and produced enough to meet or exceed their university's expectations; integrated their research into their lectures, conveying a sense of excitement about the field to their students; taught at a slower pace, leaving more time for student questions and interactions; limited course preparation time after the first offering to less than 1.5 hours of preparation for each hour of lecture, thereby freeing time for writing, research, and networking; Networked with colleagues 2-4 hours each week, forming connections that helped them with both teaching and research and eased their integration into the academic community.

The programme calls for allocating some resources directly to the new faculty member and some to support workshops, learning communities, and mentoring programmes. The components of the programme are shown schematically in Fig.1 and described.

Supporting New Faculty Members



Mentoring

A critically important element of the support programme is the assignment by the head of one or two mentors to newly arrived faculty members. Mentoring has a long history as a technique for teaching new practitioners their craft. A mentor can help a new faculty member integrate into the academic community offer guidance on getting started in research and teaching, transmit the best suggestions for new faculty and encourage their adoption and serve as an advocate in the tenure and promotion process.

Effective research and scholarship

- ✧ Encourage the mentee to set realistic goals and to prioritize activities.
- ✧ Show the mentee successful and unsuccessful proposals and articles and talk about the review process.
- ✧ Discuss possible sources of funding and encourage mentee to contact programmes directors.
- ✧ Get mentee involved in joint research projects with other faculty.
- ✧ Make sure mentee knows about research support available on campus such as a grants office or library staff.

- ✧ Ask to see work in progress and share your own.

Effective Teaching

- ✧ Visit mentee's class. Meet before class to discuss the mentee's plans and afterwards to brief in the class.
- ✧ Invite the mentee to sit in your class and discuss what went well and what could have been done differently.
- ✧ Arrange for the mentee to observe other good teachers.
- ✧ Share your class materials and talk about what to do and to address a variety of teaching problems.
- ✧ Encourage mentee to use variety in class activities, including some active learning.
- ✧ Suggest a visit to the campus-teaching centre.

Effective Time Management

- ✧ Help the mentee establish realistic long and short-term goals.
- ✧ Recommend books such as Stephen Covey's 'First Things First' that identify guiding principles and offer guidelines for setting goals.

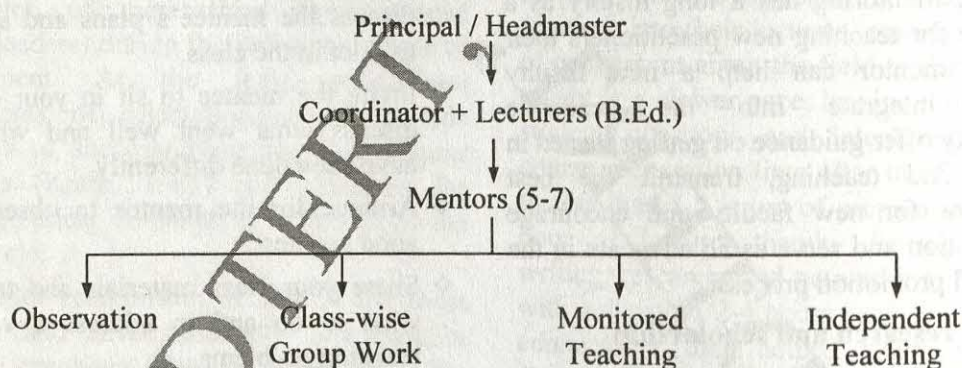
- ✧ Encourage mentee to do the things Boice suggests to avoid over preparing for class and to include time for writing.
- ✧ Teach mentee how (and when and to whom) to say no. One helpful suggestion is to never make a commitment on the spot, but to always take at least a day to consider a request that involves a substantial time commitment. This suggestion is particularly applicable to women and minority faculty, who are often asked to do more than their fair share of committee work.

Boice Quick Starter Training Plan

The mentor should encourage new faculty to:

- ✧ Limit classroom preparation to a maximum of two hours per hour of lecture after the first offering of a course.
- ✧ Spend 30-60 minutes a day on scholarly writing.

Mentor



What the Mentor has to do?

- Assign a lesson from a topic in uncovered area of 2-3 works.
- Question his ability in understanding.
- Frame creative questions on that area.
- Organize Peer Tutoring in the class.
- Time Table acc availability for each meeting.
- Orientation of mentor at each session
- Provide good teaching (model) for observation and assimilation.

- ✧ Spend at least two hours a week on discussions with colleagues focused on teaching and research.
- ✧ Keep daily records of work time expenditure to help them self-monitor how well they are managing their time.
- ✧ Integrate research interests appropriately into lectures.

College Mentor Programme

Experienced and trusted advisors (mentor) are requested to help student teachers in the supervised training programme on alternate work. This will help him to

- Provide hands on experience on teaching and classroom management.
- Shape the behaviour to become quality teachers with value and human understanding.
- Imbibe the latest teaching strategies suitable for Indian class room.

- Motivate them to acquire skills.
- Help them with special strategies for effective teaching.
- To understand students needs (academic and personal).
- Evolve them as 'Creative Teachers'.

What the students have to do?

- ✧ Daily class activity record signed by mentor.
- ✧ Notes of lesson on subject taught.

MONITORING

K. Chinnaiyan

Lecturer in Mathematics,
Sree Arumugham Teacher Training Institute, Tholudhur

The quality of education can be achieved by effective teaching which includes a proper planning, preparation, implementation and evaluation and so on. All the above process will get strengthened only by monitoring. Here monitoring means advising or guiding or helping the teacher in a right path. It will eradicate the inherent weakness for improving the quality of education and to enhance the professional development. In the educational stream, monitoring is an integral part and it will refine the quality of education. The quality of education depends on the quality of teacher. At the interest of an individual, the society as a whole and the nation at large, the necessity of quality education is very essential. It is difficult to answer towards the mediocre education existing especially in elementary level. In accord to this in 1986, Dr. R. H Dave introduced many reforms and recommendations to improve the quality of education. Admittedly there is a misdemeanor to achieve it. It can be harvested only by effective teaching. Its high time to redefine the strategy in the methods of teaching. The causes of quality education are enormous. It will be worthwhile, if we tried out by some surmountable methods. There is a unique method which is "Monitoring" and that is

more effective by adopting some techniques. It is our prerogative to practise monitoring techniques exclusively.

Aims

- To promote the quality of education
- To construct the school as a real learning industry
- To accelerate the professional excellence of the teacher
- Decentralization of working pattern
- To act as a productive citizen

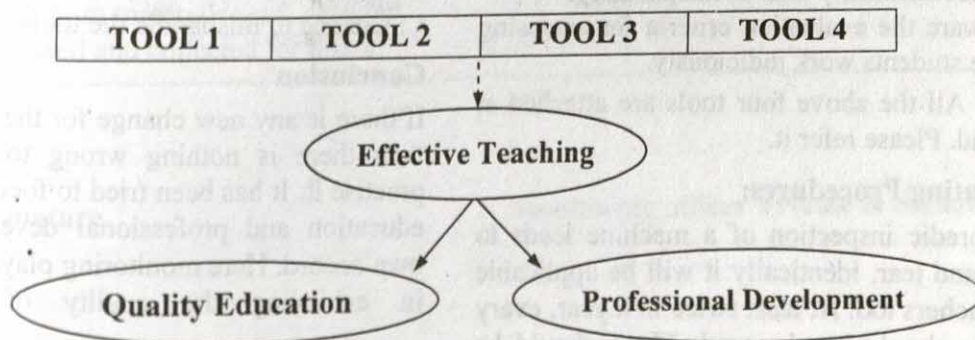
Objectives

- Understanding the prerequisites for a year plan and lesson plans.
- Understanding the salient features of different methods of teaching.
- Understanding the importance of assignment.
- Awareness of evaluation criteria.
- To bring out the desirable change in our work culture.

Monitoring Techniques

Rationale: A tool used to reflect our own strength and weakness to upgrade the quality of education and to climb in the professional career ladder.

Organo Gram



Significance

- Identifying and defining learning outcomes, professional development.
- Implementing constructive methods for effective teaching.
- Achieving a high proficiency.
- Keeping the whole system active.

About Tools

To strengthen the monitoring techniques, there will be four tools interrelated and each of them comprising with various components. These tools guide us to the right path. In spite it will serve as a mirror. It will facilitate for effective teaching. It will gear and swear our professional excellence.

Tool 1

- The first tool will be in **Red** colour.
- The logic behind the colour is **Stop and Relax**.
- Prepare your annual plan and lesson plan effectively.

Tool 2

- The Second tool will be in **Green** colour.
- The logic behind the colour is **Go Ahead**.
- Carry out your teaching effectively.

Tool 3

- The Third tool will be in **Blue** colour.
- The logic behind the colour is to **Cover** both the surfaces.
- Giving appropriate assignment to strengthen the teaching - learning process

Tool 4

- The Fourth tool will be in **White** colour.
- The logic behind the colour is **Accountability and Transparency**.
- Aware the evaluation criteria for assessing the students work judiciously.

Note: All the above four tools are attached at the end. Please refer it.

Executing Procedures:

A sporadic inspection of a machine leads to wear and tear, identically it will be applicable for teachers too. At least twice in a year, every teacher should be observed. There should be

Pre-conference and Post conference before and after observation. It is meant for orientation and providing Feedbacks. Any superior official from the educational stream can be authorized to do monitoring.

Focal Person: CEO, DEO and AEO

Integrating Person: BRC head and School head. The concerned person has to go through all necessary needs of the tools. He has to verify all the documents and he is supposed to record it in the tools. He should prepare three copies for every tool, *the first copy for official purpose, the second copy for school file and the third copy for concerned teacher.*

The higher authority for practicing the tools, while doing observation, should take extra care. These tools can act as strong supportive documents for their promotion in addition to the other criteria.

Merits

- Eradicates the inherent weakness of effective teaching
- A high degree of satisfaction
- Ultimate benefits to the students
- Brings the desirable change in the quality of education
- Cultivates the professional development
- Integrates the whole educational stream

Demerits

- Jeering will be more rather than cheering
- Not ready to accept and difficult to trust
- Chance for bias
- Create more mental stress
- Indirect threat to the profession
- Chance to mishandle the tools

Conclusion

If there is any new change for the good cause, then there is nothing wrong to accept and practise it. It has been tried to focus on quality education and professional development in own accord. Here monitoring plays a vital role in achieving the quality of education.

Tool-1*(Red Colour)**(To be used by any personnel with monitoring responsibilities)*

Name of School : Date of Visit :
 Teacher's Name : Years in Service :
 Class(s) & Subject(s) taught :

PLANNING AND PREPARATION OF LESSON

S. No.	Responsibilities	Observation & Recommendation for improvement
1.	Plans (Year, term plans prepared as per academic calendar and school policy & plans)	
	a) The coverage of syllabuses as per plans evident from student's dated work or achievement of learning outcome	
2.	Preparing detailed Lesson Plans with objective, materials as per the methods, extended work and formative assessment.	
	a) Inclusion of a variety of teaching - learning methods evident from the lesson plans.	
	b) Trying out a variety of teaching methods to make them more useful.	
	c) Planning student's task as specific objective and part of the lesson plan.	
3.	Adequate preparation of a lesson done evident from materials read, selected, improvised and collected for lesson.	

Teacher's Signature**Monitoring officer's Name & Signature**

Tool-2

(Green Colour)

(To be used by any personnel with monitoring responsibilities)

Name of School : Date of Visit :
Teacher's Name : Years in Service :
Class(s) & Subject(s) taught :

OBSERVATION OF "TEACHING A LESSON"

S. No.	Responsibilities	Observation & Recommendation for improvement
1.	Preparation for teaching (from evidences the teacher goes to the classes with the lesson plans & materials for use)	
2.	Preparing conducive classroom environment and caring for the children	
3.	Introducing a lesson well (begins with clear instructions, appropriate strategy, fulfilling objectives)	
4.	Developing a lesson logically and sustaining (starts with general instructions of what and how activities etc. are to be done to learn the topic).	
	a) Starting activity appropriately (Begins with gaining attention, display, group demonstrate, distribute materials, confirm and give verbal or written instructions and start activities).	
	b) Monitoring the activity (observing pupil's participation, encouraging, guiding, correcting works and stopping activity on time).	
	c) Carrying out follow up of an activity (instruct, confirm/correct the concepts, skills and values, acknowledge and motivate).	
5.	Adequate closure of a lesson (directs, asses pupil's learning against lesson objectives, concludes)	
6.	Assigning home work (gives specific direction to task, criteria of assessment, date of submission and briefs pupil on future lessons)	

Teacher's Signature

Monitoring officer's Name & Signature

Tool-3*(Blue Colour)**(To be used by any personnel with monitoring responsibilities)*

Name of School : Date of Visit :
 Teacher's Name : Years in Service :
 Class(s) & Subject(s) taught :

ASSESSMENT OF STUDENT WORKS

S. No.	Responsibilities	Observation & Recommendation for improvement
1.	Assignment of Tasks a) Varieties of tasks are designed and different tasks are assigned with specific focus to develop concept, skills and values and attitudes. b) Home tasks are assigned as per the schedule with specific directions and criteria for assessment of student's works. c) All the tasks assigned as per schedule (i.e. time frame).	
2.	Assessment criteria: a) Teacher is aware of existing assessment criteria given in various documents. b) Criteria for different learning tasks are used in assessing work of students and marks are awarded accordingly.	
3.	Strategy: a) Teacher uses a range of strategies for assessing student's works (self, peer, group assessment and by teacher) b) Different feedback modes are used by the teacher such as discussion in the class, individual verbal or writing based on criteria given to pupils. c) Monitoring the follow up on feedback (has a system to re-doing of working, imposition etc. And rechecking of students and record d) Student's works are assesses judiciously based on criteria and marks recorded regularly.	

Teacher's Signature**Monitoring officer's Name & Signature**

Tool-4*(White Colour)**(To be used by any personnel with monitoring responsibilities)*

Name of School : Date of Visit :
 Teacher's Name : Years in Service :
 Class(s) & Subject(s) taught : Exam :

EXAMINATION ASSESSMENT

S. No.	Responsibilities	Observation & Recommendation for improvement
1.	Teacher follows Govt policies related to exams and evaluation (blue print & others, setting of questions, moderations, assessment criteria, evaluation, etc.)	
2.	Questions paper are set as per the plan (prepared at the start of year)	
3.	Appropriate marks are allotted for testing the levels of cognitive development (Knowledge, understanding, application and skill)	
4.	Appropriate Weighing % is given to different types questions to test students abilities fairly (Essay , short & objective types testing range of difficulties or development levels)	
5.	Question are moderated to check appropriateness and clarity of language, coverage of syllabus, balance in testing different educational objectives, difficulty levels, fair allocation of marks etc.	
6.	Assessment criteria are elaborately developed and used for the award of marks to pupils' work	
7.	Analysis of teaching learning processes and related areas done by using exam results for feedback and improvement.	
8.	Progressive records of assessment related work of student and teacher maintained and such records are made available to the people who need it	
9.	Progress made in assessment related work over the years and teacher has plans to improve in future	

Teacher's Signature**Monitoring officer's Name & Signature**

A STUDY ON SCHOOL EFFECTIVENESS FACTORS (PHYSICAL, CURRICULAR AND ADMINISTRATIVE FACTORS) AND THEIR CONTRIBUTION TOWARDS ENHANCED LEARNING ACHIEVEMENT AT PRIMARY STAGES

M. Jeevanantham

Principal, DIET, Manjur, Ramnad

Effective school is one, which exploits the whole of school factors including community resources for enhanced learning achievement. Research on school effectiveness in the developing countries have shown that school factors are significant for enhancing academic achievement of pupils.

Further, the studies have reported that low level of learning achievement by primary school children. A study is needed to find out the impact of the physical curricular and administrative factors of school effectiveness for enhancing the learning achievement. In this situation, this study aims at finding out the influence of physical, curricular and administrative factors of school effectiveness on the learning achievement in Tamil, English, Mathematics, Environmental Studies-II / Science and Environmental Studies-I / Social Science and subjects as a whole at primary stage.

Objectives

The study has the following objectives:

- i. To study the physical factors of school effectiveness at primary stage,
- ii. To study the curricular factors of school effectiveness at primary stage,
- iii. To study the administrative factors of school effectiveness at primary stage,
- iv. To find out the significant relationship between the physical factors, curricular factors and administrative factors of school effectiveness and learning achievement of V Standard pupils in Tamil, English, Mathematics, Environmental Studies-II / Science and Environmental Studies-I / Social Science and subjects as a whole individually, and

- v. To find out the significant relationship between the physical, curricular and administrative factors of school effectiveness taken as a whole and learning achievement of V Standard pupils in Tamil, English, Mathematics, Environment Studies-II / Science and Environmental Studies-II / Science and Environmental Studies-I / Social Science and subjects as a whole.

Sample Selection and Data Collection

The empirical basis of this study is 242 primary schools consisting of 741 teachers and headmasters in total selected on the basis of simple random sampling technique from Aruppukottai Education District of Tamil Nadu state.

Data were collected from the sample schools through the following rating scales:

- i. Rating scale to assess the physical factors related to School Effectiveness (reliability ' r ' = 0.85),
- ii. Rating scale to assess the curricular factors related to school effectiveness (reliability ' r ' = 0.75) and
- iii. Rating scale to assess the Administrative factors of school effectiveness (reliability ' r ' = 0.79).

Statistical Analysis

Karl Pearson's Product Moment Correlated technique was used to find out the relationship between the physical, curricular and administrative factors of school effectiveness individually and all these three factors taken as a whole and the learning achievement of V Standard pupils in Tamil, English, Mathematics, Environmental Studies-II/ Science, Environment Studies-I/Social Science and subjects as a whole.

Results and Discussion

Correlation between physical, curricular and administrative factors of school effectiveness in primary schools and learning achievement

of V Standard pupils in different subjects and subjects as a whole are presented through the correlation coefficient in Table-I.

Table-1

Correlation between scores of Physical, Curricular and Administrative factors related to School Effectiveness and Learning Achievement Scores of V Standard pupils in different subjects and subjects as a whole

Nature of Factors	Tamil (N=242)	English (N=242)	Maths (N=242)	Env. Stu. II (N=242)	Env. Stu. I (N=242)	Subjects as a whole (N=242)
Physical Factors	0.062	0.035	0.008	0.038	0.004	0.030
Curricular Factors	0.089	0.110	0.102	0.072	0.053	0.094
Administrative Factors	-0.050	0.004	0.031	0.094	0.048	0.029

Note: Not significant at 0.05 level

Data in Table-I reveals that the obtained 'r' values between the physical, curricular and administrative factors of school effectiveness and learning achievement of V Standard pupils at primary stage in different subjects (Tamil, English, Mathematics, Environmental Studies-I (Science), Environmental Studies-II (Social Science) and subjects as a whole are not significant at 0.05 level. It means that there is no significant relationship between the physical, curricular and administrative factors of school effectiveness and learning achievement of V Standard pupils at primary

stage individually. Therefore, the formulated hypothesis 'there exists significant relationship between the school effectiveness factors (physical, curricular and administrative factors), considered individually and learning achievement of V Standard pupils at primary stage in different subjects and subjects as a whole is rejected. Correlation between physical, curricular and administrative factors taken as a whole and the learning achievement of V Standard pupils in different subjects and subjects as a whole are presented through 'r' values in the following Table-2.

Table-2

Correlation between scores of Physical, Curricular and Administrative factors of School Effectiveness as a whole and Learning Achievement Scores of V Standard Pupils in different subjects

Nature of Factors	Tamil (N=242)	English (N=242)	Maths (N=242)	Env. Stu. II (N=242)	Env. Stu. I (N=242)	Subjects as a whole (N=242)
Physical, Curricular and Administrative factors as a whole	0.030	0.067	0.045	0.066	0.082	0.065

Note: Not significant at 0.05 level

The above Table-2 reveals that the obtained 'r' values between physical, curricular and administrative factors taken as a whole and learning achievement of V Standard pupils in different subjects (Tamil, English, Mathematics, Environmental Studies-II (Science), Environmental Studies-I (Social Science) and subjects as a whole are low and positive. But they are not significant at 0.05 level. It means that there is positive

relationship between the physical, curricular and administrative factors taken as whole and learning achievement of V Standard pupils but it is low and not significant. Therefore, the stated hypothesis 'there exists significant relationship between the physical, curricular and administrative factors of school effectiveness taken as a whole and the learning achievement of V Standard pupils' is rejected.

DTERT, Chennai

DEVELOPING INSTRUCTIONAL COMPETENCY THROUGH ACTION RESEARCH PROCESS

Dr. M. S. R. Sharma

Senior lecturer, DIET, Bheemunipatnam, Vishagapatnam, Andra Pradesh

Teacher education programmes are the programmes for the professional preparation of teachers. They are not of general, academic study. Accordingly, they provide a comprehensive coverage of professional knowledge, understanding, attitudes, interests, values and skills along with functional orientation. The challenges before the teacher education are to be responsible to academic and social demands of society. Therefore, unless the steps are taken to make the process of teacher education meaningful and qualitative, better and effective teachers will be proved a dream. The quality concerns are tangible. Quality is not a destination but a process. Therefore teacher education programmes are to be developed to ascertain its quality.

Pedagogical Shift

NPE (1986) paid special attention for providing quality teacher education. Consequently, SCERTs and DIETs started imbibing newly involving concepts in curriculum. The concern of these efforts was the professionalization of teacher education programme by making a pedagogical shift.

Theory and Practice Debate

The relationship between theory and practice in the knowledge base of teaching and in the professional preparation of teachers is a long debate in teacher education. This distinction is often posed as a dichotomy between knowledge about teaching and professional knowledge that grows of practical experiences in the class rooms. The debate has become more complicated in recent years as notions of theory have been extended from knowledge grounded in scientific research by professional education researchers to knowledge created through on the job inquiry into practice

teachers acting as “action researchers” or “reflective practitioners”.

Professional success of every profession depends on the up-to-date professional knowledge, devotion and dedication along with efficiency and effectiveness. Advancement in technology and communication has brought about a lot of changes in the field of education. Teaching occupies an important role in the society, therefore, there should be a sound programme of Professional Education of teachers in the country.

Objectives of the Study

- To study the importance and effectiveness of reflective process on the instructional competencies (limited to 10 members).
- To know the perceptions of student teachers towards professional aspects, instructional aspects at primary level.
- To study the significant differences in between male and female respondents in their perceptions towards professional and instructional aspects.

Hypotheses

- There is an effectiveness of reflective process in the enhancement of instructional competency.
- There are no significant differences between the male and female respondents in their perception towards professional and instructional aspects.

Sample

It was confined to the student teachers of DIET, Bheemunipatnam to know their reflections on the practicing subject lessons. In terms of sample size the study was limited to 68 (39 male and 29 female) student teachers out of 102. Further it was limited to know their

perceptions towards their professional and instructional aspects.

Designing of Measuring Instrument

The reflections of the student teachers were taken into consideration and discussed and analyzed. Student Teacher's professional and instructional aspects were taken into consideration for the preparation of the question items. Only professional interest, professional satisfaction and the instructional aspects were considered in framing the tool for collection of the data. The researcher prepared the questionnaire consisting of 28 items. Like summated rating technique was the method adopted. Accordingly each scale item consisted of five response categories: Very High, High, Undecided, Low, Very Low which were scored from 5 to 1.

Analysis, Results and Discussion

Student teachers were recorded of their points on the days of teaching and the researcher discussed and guided them for next practicing lessons. Initially the trainee teachers could not complete the task and could not have the pace of teaching as desired. The formation of groups did not form on observing any norm. The general analytical points recorded were mentioned as follows:

- enhances the planning competency
- control in overlapping of teaching
- enhancement in the classroom management
- improvement in communicating the items and its skill improvement
- improvement in the peace of teaching
- improvement in the participatory level of the students
- skill in improving the application of classroom situations
- skill in observing the whole situation
- enhanced the effectiveness in teaching

The process of data collections encouraged the teacher trainees to step beyond their own teaching and observed the way how children received their lessons. Through a unique support system emerged in between the teacher educator and the teacher trainee. This process helped the trainees in improving their instructional competency.

Perceptions of the trainees towards instructional competency

The data pertaining to the professional and instructional aspects of student teachers. The perceptions of the student teachers towards professional and instructional aspects at primary level was 117 which falls in the category of high performance, the observed performance scores in the sample varied from 99 to 135, on the whole it was encouraging.

Table-1 represents a summary of the results of the analysis of perceptions of male and female student teachers towards professional and instructional aspects at primary level. Looking at the average scores in Table-1, in the sample, there are no statistically significant differences in the perceptions of male and female respondents towards professional aspects, in identifying the individual differences, usage of local environment and in creating attractive class room atmosphere at primary level. Therefore, the above mentioned findings corroborated our hypothesis.

The obtained value of critical ratio shows in the table-1, indicates that the differences between the perceptual mean scores of male and female respondents perceptions towards provision of learning activities in instructional aspects, promoting learning by doing and developing individual whole and group activities, were statistically significant. It shows that the female respondents are having higher perceptual value than their male counter parts towards all these three areas.

Table 1

**Significance of the difference between the means of the perception scores
of the various sub-samples**

Sub-sample	Gender	N	Mean	SD	CR	Remarks
Professional aspects	Male	39	33.3	2.15	1.41	Null hyp. retained
	Female	29	32.2	3.73	NS	
Provision of Learning Activities	Male	39	16.8	2.32	2.65	Null hyp. rejected
	Female	29	18.1	1.85		
Promoting Learning by doing	Male	39	16.3	2.03	3.75	Null hyp. rejected
	Female	29	18.1	1.99		
Developing whole and group class activities	Male	39	16.4	1.91	4.59	Null hyp. rejected
	Female	29	18.3	1.53		
Recognizing individual differences	Male	39	12.7	1.48	1.28	Null hyp. retained
	Female	29	13.1	1.22		
Using local environment	Male	39	14.3	1.96	1.98	Null hyp. rejected
	Female	29	15.0	1.48		
Creation of attractive class room	Male	39	8.4	1.19	0.18	Null hyp. retained
	Female	29	8.5	0.96		

The perceptual values of student teachers towards professional and instructional aspects

1.	Professional	32.8	High
2.	Instructional inputs - Provision of Learning Activities	17.5	High
3.	Instructional inputs - Promoting Learning by doing	17.7	High
4.	Instructional inputs - Developing whole class and group class activities	17.4	High
5.	Instructional inputs - Identifying individual differences	12.9	High
6.	Instructional inputs - Using Local Environment	14.7	High
7.	Instructional inputs - Creation of attractive class room situation	8.2	High

The above data revealed that all the areas in this scale are very useful. All the above areas fallen in the category of High as per the perceptions of the student teachers.

Approaches to Teacher Education

The reflective teaching technique: Teacher education programmes oriented around the

concept of reflective teaching may be designed to prepare teachers who may be reflexive decision makers, rather than behaving according to technique, impulse, tradition and authority, reflexive teachers must be capable enough and take up follow up activities on their according to the suitability of the learners.

Conclusion

One of the significant qualities of action research reflective process puts the teacher trainees in the position of accepting more responsible for the improvement of their professional growth. Action research could be incorporated in the schools exclusively for the professional development of the staff. The teachers, Headmasters and other administrators must involve in the action research or reflective process when analyzing. Incorporating action research at both pre-service and in-service levels will reinforce the valued quality of the long reflection and change in the teaching professional.

1. The level of the professional and instructional aspects as perceived by the student teachers was high.
2. Male and females category respondents hold similar opinion towards professional aspects.
3. Another important finding that has emerged from this study was that the female category respondents perceived more than that of their male counter parts towards instructional - provision of learning activities.
4. Another important finding that has emerged from this study was that the female category respondents perceived more than that of their male counter parts towards instructional - promotion of learning by doing.
5. Another important finding that has emerged from this study was that the female category respondents perceived more than that of their male counter parts towards instructional - developing whole class and group class activities.
6. The male and female category respondents hold one and the same opinion towards - instructional aspects - recognizing individual differences among children, using the local environment and creating attractive class room atmosphere.

Educational Implications

A major educational implication is that, conduct of action researches using this reflective process both at pre-service and in-service levels would enhance the competency of the teachers, hence, conduct more number of works on the various developmental aspects. These are briefly outlined here.

A major educational implication of the study has been identified that the student teachers perceived high with regard to professional and instructional aspects, it shows that the impact of teacher training in the development of professional and instructional aspects among student teachers was high. The implication indicates that the development of professional and instructional aspects among the trained teachers assumes highest importance at the primary level. The better the role of the teacher with all his/her competencies in the class room the better will be the effectiveness of the climate of the school. The male and female category respondents hold one and the similar opinion towards professional aspects and in certain areas in the instructional aspects viz., identifying individual differences, using local environment, and creation of attractive class room atmosphere.

The overall conclusion emerging out of the findings was that, female student-teachers are found to be clearer and more profound in their perceptions towards instructional aspects, i.e., provision of teacher generated learning activities, promoting learning by doing activities and developing whole class and group class activities than that of their male counter parts. Though the trainees have been given the same course of training, female respondents were higher in their perception than the male in some instructional aspects. In the ultimate reckoning, the value of this study consists more in throwing up useful findings and avenues for further exploration into the place of professional and instructional aspects at primary level.

SELF CONTROL, CREATIVITY AND SELF REGULATION AMONG THE CHILDREN OF GUDALORE PRIMARY SCHOOL - A CASE STUDY

P. S. Irai arul

School Assistant, Panchayat Union Primary School,
Gudalore, Kaveripakkam

Gudalore

Gudalore is a small village. The total population of this village is 1200 approximately. It lies 210 km away from Sholinghur on Sholinghur to Arakkonam Main Road. The people of this village are mostly weavers and agriculturalists. The total area of the school is two acres. This school has enough infrastructure. The headmaster and the teachers are more enthusiastic and they involve themselves in developing the educational activities among the children. Though the public is having poor education, they were oriented properly in the field of Education Awareness, by the teachers. Now at present the public support all the Educational Activities of the school.

The School Organization

This school consists of one Headmaster and five teachers. Totally 250 students are studying in this school. All the students are hailing from Gudalore, Samathuvapuram and Gudalore colony. The children fall under below poverty line.

Infrastructure

This school has three buildings with RCC roofing with two classrooms each. It has enough space for the children to play. This school has enough number of Teaching Learning Materials.

Adaptability of the Students

Adaptability deals with the feasibility in handling challenges and changes. The students of this school have more adaptability to the fast changing Education System and Current Trends. The students have adapted themselves to the handling of Self Learning Materials. The students have got this quality due to the proper guidance and counseling given by the

teachers. They were trained in such a way to adapt to any situation. Since the students of this school are endowed with this quality right from the age of 5, they can choose and smoothly handle and effect any rapid change in their life in future. There is also a chance for them to competently shift the priorities. It is obviously found that the responses of the students to the circumstances are so effective.

Trustworthiness among the Students

Trustworthiness is the character of a person in honesty and integrity exhibited through his/her activities. The teachers of this school provide this value concept to the children along with their curricular subjects. Moreover the teachers have developed 'We' feeling among the children. This feeling made the children to think that they should be integrated and they should be honest. Because of this feeling, the children protect the school properties with complete care.

It is a different atmosphere where the students share properties among themselves and also with their teachers and the society. This action makes the students avoid stealing and owning the others properties.

This ability of the students developed at this age maintains integrity and take responsibility for their further performance. They are Reliable Authentic, Build Trust, Boldly Confront Unethical actions and take through principled stands. This sets an example for the trustworthiness of the students.

Self Control among the Students

The students of this school enjoy the power of self-control. They gained these powers through constant, moral instructions, stories with value concepts, selective meditation, counseling etc. The teachers have another plan to implement yoga and meditation for all the

students and safeguarding them as a developed human beings from lack of self-control. Since the children of this school are exposed to self-control as they could manage all the situations at this age and also in future. If they are accustomed to this character throughout their life, they could easily manage all situations. They could accept both success and defeat whichever comes with equanimity. Because of this character in future they would live in peace and offer that peace to everyone.

Creativity among the Students

Creativity is the different type of mental approach, in which one thinks in a different manner than others think. They present everything in a different manner. The teachers of this school give opportunities to the students to come with new ideas, moreover they kindly instruct them to think in different way by introducing, new situations partial line drawings, incomplete stories etc. This kind of practice makes the students to think in their own way and come to conclusion of their own. All the completed forms were them collected

and all the ideas were shared to all students. These activities develop the problem solving skills, innovative thinking, positive attitude, thematic aptitude and creativity among the children.

Self-regulation among the students

In the school under study, along with curricular subjects, the students are well exposed to adaptability, trustworthiness, self control and creativity. These four components form the four pillars of the self-regulation part of value concept. The achievement of all the above components at the early stage of the life, if practiced throughout the life well make themselves as good citizen. They could stand as the role model for the remaining part of the society. It is evident that the students of this school will become self-regulated personalities in future. They will manage and handle impulses and distressed feelings. They can stay composed, positive and unflappable even under pressure they can also think clearly and stay focused.

PROMOTING INTERPERSONAL RELATIONSHIP AMONG ELEMENTARY SCHOOL TEACHERS AND CHILDREN WITH LEARNING DISABILITIES A MEANS TO QUALITY ELEMENTARY EDUCATION

S. Jamsheed Mohideen

Senior Lecturer, DIET, Kumulur

Interpersonal Relationship

A substantial portion of a student's day is spent in School and school experiences of dramatic exert. The school experience includes the student's relationship with peers and teachers. In addition to the academic curriculum students have to cope with a "hidden curriculum" of expected values and behaviours. Many students with learning disabilities often have problems acquiring appropriate School behaviours. They often have unsatisfactory relationship with teachers and classmates, receiving much less praise and acknowledgement for their efforts and are more likely to be criticized, shown disapproval and even ignored.

Need of the hour

Ten percent of the school going children have learning problems. In the traditional classrooms, most of them are isolated because of their failure leading to shyness, depression or negative self attitude or for one reason or another students have develop a disliking to them. Teachers are often at a loss how to help such students how to integrate them more fully into classroom life. For teachers are continuously told by administrators, parents and the commoner in subtle ways that class room control is the most important part of teaching. It is not. The most pressing need in our society of organised complexity and constant change is for persons who are skilled in being human i.e. for persons who can feel and express warmth, trust, care and compassion. The teachers who are sensitive and have awareness about learning problems, understand that the problems occur due to malfunctioning of neurological functioning of the brain, accept that these children have the need capacity to succeed, willing to adopt new

techniques of teaching and evaluation, above all realize the impact of interpersonal relationship are in need.

Impact of Inter Personal Relationship

The interpersonal relationship factor or the rapport between pupil and teacher is of paramount importance. Without it, learning is likely to be hindered. Students with learning disabilities often feel at loss and frightened because they have suffered years of despair, discouragement and frustration. So effective teaching also requires a subjective understanding of the pupil as a whole with feelings, emotions, attitudes along with techniques and methods. Teachers should realize that learning disabilities may have impact in every aspect of the students' world. It is important to recognize the emotional impact of a failure on the student. Not only are teachers displeased with the child, but if they are assured that his or her intelligence is normal, they tend to punish, scold and threaten, or even reward with the hope of producing desired results. But they feel frustrated by their inability to reach the child. An important responsibility of the teacher is to build their self-concept and self-esteem, and to them interested in learning. Success in learning has a beneficial effect on personality, enhances feeling of self worth, and rekindles an interest in learning. A healthy and effective Interpersonal relationship has much to contribute to the above said factors.

Teachers can make use of assessment instruments such as interview, inventory, checklist, rating-scale and socio-metric techniques for assessing social emotional factors. With which they can gain insight into the behaviour patterns of children with learning disabilities and this will help them to understand them better.

Components of interpersonal relationship

- Interaction that helps to build healthy relationship.
- Mutual liking.
- Effective communication
- Trust
- Acceptance and support
- Utilization of personal resources
- Sharing and helping
- Emotional involvement
- Co-ordination of effort
- Divergent and risk taking thinking.

Opinion Survey

An attempt was made to study the existing status of interpersonal relationship of elementary teachers and the children with Learning Disability from the point of view of teachers. The sample consisted of twenty elementary school teachers from Lalgudi Educational district selected at random. An opinionative was the tool used to collect the data. The opinionnaire consisted ten items of yes or no type.

Opinion of the teachers regarding interpersonal relationship

Sl. No.	Components of I.P.R.	Percentage of teachers with positive opinion	Percentage of teachers with negative opinion.
1.	Healthy relationship through interaction	40	60
2.	Mutual liking	35	65
3.	Effective communication	25	75
4.	Trust	30	70
5.	Acceptance and support	85	15
6.	Utilising personal resources	35	65
7.	Sharing and helping	45	55
8.	Emotional involvement	50	50
9.	Coordination of effort	50	50
10.	Divergent and risk taking thinking	40	60

It is clear from the data presented in the above Table that the Interpersonal relationship between the Teacher and the Children with learning disabilities is strained. The areas such as Effective Communication, Trust, Utilisation of Personal Resources, Mutual linking, Healthy Relationship, Divergent and Risk taking thinking need focus.

As the Elementary teachers' knowledge about the Learning Disabilities is very limited they find it difficult to manage and cope with the children with learning disabilities which results in strained Interpersonal Relationship. The reason for the lack of exposure is that the Learning Disabilities is an emerging dimension of special Education which has not found its place in pre-service and in-service training

programmes of Elementary teachers. DTERT and DIETs should take necessary steps to provide learning packages and training modules with special reference to learning disabilities in the areas of managing children with learning Disabilities and appropriate class-room accommodations. With the help of these modules the teachers will have better understanding about the learning problems and learning styles of the children with Learning Disabilities, which will lead to better interpersonal relationship, which in turn will have a desirable impact in the academic achievement. Indigenous software are to be created to help the children with Learning Disabilities to practice and help them to overcome their learning problems.

FOCUS ON SLOW LEARNERS - NEED OF THE HOUR

M. T. Manjula Devi

Lecturer, DIET, Munanjipatti, Tirunelveli Dt.

Destiny of India is being shaped in our classroom, it obvious that the classroom teacher directs, controls, guides and transferring the children under his charge into enlightened citizens who later through their vision and selfless work contribute to the all round progress of the nation. Quality is the character of input, process and output. It depends on external environment and internal environment. Quality in education has also been conceptualized in contextual manner taking into account. The external environment in which institution are operating, the internal environment in which the teaching-learning process takes place and the home environment of the learner. The integrated development of the child has persistence in learning, mastering the skills help us to achieve the goal 'Educational for all'. To achieve this goal all of us have to focus on slow learners, that is a must of this moment.

Slow Learners

Slow learners are grouped like someone learning slowly in all subjects and some are in one or two subjects learning slowly. They are 7 to 10% in classes. Their IQ is likely 70 to 100%. Slow learners have problems in the areas of reading, writing, spelling and memorizing. They are unable to spontaneously use rehearsal strategies, record information in a meaningful way. Each student learns differently and this is true of learning disabled children.

Need of Teacher's Motherhood approach to Slow Learners

A teacher must observe and study the child at home, school and environment. She must completely analyze the cause for the slow learning. It may be physical or psychological. A teacher must have a close contact with parents of students and find out the reason for slow learning. The teacher may visit the home

of the slow learners to know the real situation. Parents and teachers may discover the problem when the child fails to cope with school work.

After finding the cause for the slow learning, a teacher can introduce methods in a successful manner. Teacher should move lovingly with the child. He/she should not curse or scold the child. Teacher must hold a place in hearts of students and he must realize that teacher will help him to learn easily. Slow learners should not be separated in the class it will make the child felt guilty. He can be formed in groups with other child. He should not be criticized. If the teacher shows special attention there will be improvement day by day. Parents should be encouraged to cooperate with the teacher to make him normal. Teachers should have the characters like involvement, commitment, training morale, personal effectiveness, follower of time management, thirst for knowledge, self-understanding, self-direction, promoter of human relationship, good voice, high degree of professionalism, creator of healthy institutional climate, holder of appropriate behaviour and self-analysis.

Need of Approachable Learning Strategies for Slow Learners

Teaching learning practice should be in easy understanding way. Teacher must give constant practice to the child to attain the skill. Teacher must produce the subject matter from easy to difficult for every concept. There should be concrete subject material, TLM and SLM. Learning materials should be simplified by the teachers. It is the teacher's duty to find out and explain the facts and make students attain the competency. Constant practices by the teacher turn him up. Teacher can attract him by giving practice in the subject matter which he likes first and then slowly attract him towards other subjects. It is a must for slow learners that TLM and SLM is a must. TLM

and SLM should be understandable according to the subject matter. It should be fit for the knowledge of the student.

In classroom practice a teacher must evaluate instead of written examination. For the slow learners he may follow activities prescribed for the question to be answered. Maintaining a record for the personal information like parents, sickness, likes and dislikes and achievements and pass it over to the class teacher and she gets promoted to the next class. A structured plan of action is very beneficial to the learner. Though it is hard work initially, in the long run it saves the teaching time and it is more productive. To be successful the remedial programmes must have collaboration and support of headmaster, teacher and community. It involves a great deal of team work, planning and cooperation.

Most learning disabled student need a highly structured learning environment with objectives being clearly specified. *The teacher has to be sensitive to difference in learning styles and cognitive structure.* The teachers should be willing to adopt different strategies and learning aids in the classroom. Teachers must be encouraged to experiment with innovative teaching methods.

Need of encouraging words for slow learners

Our education aims at integrated development of the child. Encouraging words help the child

to bring out his best output after the learning. It builds up the teacher-student relationship. It keeps the child confident and stimulates his involvement in the teaching learning process.

A teacher must use certain encouraging words like 'You can', 'Try again', 'Catch him', 'Excellent', 'Great' and 'I know you will do it'. The teacher should not be told that he is lazy, stupid or stubborn. Teachers never make assumptions about a student without first determining the child's performance. The child should not be penalized for failing to complete assignments. The child should be allowed to take part in regular programmes.

Use a considerable amount of praise and positive reinforcement to complete a task. Teacher will protect the child from the cruelty of other children and help the child succeed as much as possible.

Need of parents involvement in enlistment of slow learners

Teachers must realize that parents too need support and assistance in coping with children's problem. It is important for parents to feel involved in what is happening in school and they should be looked upon as partners.

So parents, headmaster, teachers and teaching-learning strategies may play a vital role in the slow learners who are the main focus group to achieve the goal of Quality Education For All.

MENTALLY RETARDED CHILDREN AND THEIR LEARNING ACTIVITIES

Malathi Thirumaal

Teacher Educator, Amirthalaya Teacher Training Institute,
Tirupattur, Vellore Dt.

“Mental retardation refers to significantly Sub - average general intellectual functioning existing concurrently with deficits in adaptive behaviour manifested during developmental period”.

Children with mental retardation are markedly slower than their age mates in using memory effectively, in association and classifying information, in reasoning, and in making sound judgments - the type of performance measured on intelligence tests.

“When I hear, I forget”

“When I See, I remember”

“When I do it, I understand”

Learning though activity is the best mode of learning in normal person. For the mentally retarded we have to give more activities for sensory and motor development due to the poor concentration.

Activity based learning stimulates the thoughts and fulfill the stable learning experience. Activity based learning is centered mainly in interaction activities, appreciating activities, creative activities and the combination of learning activities. By the methods of activity based learning, difficulties faced by the teacher can be easily handled.

Activity based learning is stimulated, they learn easily and the response is always effective.

Training in daily living skills

- Drinking
- Eating
- Healthy toilet habits
- Brushing
- Bathing Skills
- Dressing Skills

- Grooming Skills like, applying oil, combing hair, applying powder, fixing bandy, wearing chapels/shoes are all activities to be taught under grooming.

➤ Menstrual hygiene

Teaching of daily living activities should take place during the time it is usually done.

Activity based learning covers the all round development of the mentally retarded children

Teachers play a role in nurturing and facilitating social & emotional development as well as intellectual growth.

Physical Development

- A record of physical disabilities is made, remedial measures adopted and progress observed.
- A rating scale of physical efficiency is used.
- A record of participation in games and athletics by each pupil is kept.

Personality and character development

It is necessary for the teacher to make keen observations or the behavior response of the pupils inside and outside the class room.

- An assessment for the Mentally Retarded Children in one diary wherein he records his daily observation, personal likes and dislike and important events.
- An assessment by the teacher in his own diary, which will contain a record of all events and special points pertaining to each Mentally Retarded Children behaviour.

Social Development

Man is a social being. A special environment for development of social traits, appraisal of the rate and progress in social maturity of each

Mentally Retarded Children, forms one of its important functions.

- Day to day work of mentally retarded Children, his participation in games, Social service, Gardening, Cleaning, Cooking, and other activities.
- Varieties of opportunities must be provided for free play and organized play, co operation toleration and sincerity.

Some Major ideas for Mentally Retarded Children

- The elementary curriculums for mentally retarded students stress academic skills, communication and language development, socialization, and prevocational and vocational skills. The emphasis is particularly on students with moderate retardation.
- The learning environment in which the child who is retarded is placed is less important then the way the child is educated there.
- The learning environments in which students with mild retardation are usually placed in the regular classroom, resource room, and part - time or full - time special classes.
- Planning and vocational training are needed to ease the transition from school to work of those with mental retardation.

Education of the Mentally Retarded Children

Curriculum for the Mentally Retarded Children should cover the following.

Self-care

This enables the children to develop skills of Self-help in their daily practical needs. Skills involved in toileting, eating, dressing, hygiene, and grooming.

Sensory Training

Special emphasis must be laid on instructions by which the children will be able to make the fullest use of their senses.

Language Development

They must be provided with some aids through which they can have better speech development and proper understanding of verbal concepts.

Craft work and Music

For developing the feeling of self-confidence in mentally retarded Children the curriculum should include simple crafts training programmes like weaving, rug making, basketing etc. By having this, economic self-sufficiency can be obtained.

Learning by doing

Generally the defect of the mentally handicapped child lies in the area of relational and abstract thought.

Repetition

Mentally retarded children have a poor memory. For them, teaching method must provide for a considerable amount of repetition if learning is to be retained.

Periods of short Duration

Mentally retarded children have limited power of concentration. For this reason, formal teaching periods should be kept fairly short. It is importance to note how long a child can concentrate when the subject is stimulating.

Work

Skills related to holding a part-or full-time job or in the community in terms of specific job skills, appropriate for social behavior, and related work skills (e.g., completion of tasks; awareness of schedules; ability to take criticism and improve skills.

Techniques for developing creativity in the mentally retarded children

- Pictorial riddles
- Inventions
- Silent demonstration
- Encouraging new ideas
- Encouraging student involvement
- Encouraging student questioning
- Display the creative work

- Encouraging student initiative
- Encouraging artistic ability
- Encouraging the positive attitude “good”, “very good”, “nice”.

Conclusion

Because of only one reason they are mentally retarded they cannot be ignored by the society

totally. On the contrary taking their intelligence, adaptive behaviour and demands of the social environment in to consideration, the curriculum, learning devices, and methods should be framed. So that they can lead an independent life and their life will become meaningful and respectful in the society.

DTERT, Chennai

INFLUENCE OF ACTIVITY BASED LEARNING APPROACH IN CLASS-ROOM CLIMATE OF PRIMARY EDUCATION

C. G. Elangovan

Lecturer, DIET, Perudurai, Erode District

"Of all different factors which influence the quality of Education and its contribution to national development, the quality, competence of character of the teacher and undoubtedly the most significant. Nothing is more important than securing a sufficient supply of high quality recruits to the teaching profession, providing them with the best possible professional preparation and creating satisfactory conditions at work in which they can be fully effective" (Education Commission, 1964-1966).

In the entire teaching-learning process, the teacher is a powerful agent who can inculcate the democratic ideas of nationhood in children. High achievements of the student, better school performance, molding of children into better citizens and exposing them in the arena of growing competition are some of the major issues lying at the hands of the teacher. Thus, the importance of a teacher in the educational process is unquestionable.

The entire ABL class-room of primary education is steady and effective in nowadays. The teacher is the ultimate agent who dispenses knowledge, frames the time schedule, selects reading materials place the role of subjects specialists and helps the pupils to overcome their difficulties. Recently the ABL approach is doing the overall roles of teachers.

Need and significance of the study

The Government of Tamilnadu implemented ABL approach in all over the district's of primary education. This is a new initiative of

department of elementary education Sarva Siksha Abiyan of Tamilnadu state. Hence the investigation was undertaken for this study.

Objectives of the Study

- ✧ The objective of the study was to find out the influence of ABL approach in class-room climate of primary education.

Methodology

The survey method was adopted for the study. The sample of 50 primary teachers from 25 schools in Perundurai region of Erode education district was considered for this study. The schools were selected randomly. The influence of ABL approach scale has been employed to collect the data. The tool used in the study was a five point liker attitude scale. The tool was developed by the investigator. Opinion from two experts and five primary teachers was also taken into consideration for validating the tool. Frequency score and percentage score were employed for analyzing data.

Analysis and Result of the Influence of ABL

From the table below, it is informed that 27.56% of the respondent strongly agreed that the ABL approach has influenced the class room climate of primary education and 38.8% of the respondents agreed that the same. 15.23% of the respondents are not sure. 13.76% of the respondents disagreed and only 4.67% of the respondents strongly disagreed that the ABL approach has influenced the class room climate of primary education.

**Primary Teacher's Attitude towards the influence of ABL approach
in the class-room climate (in percentage)**

S. No.	Statements	Strongly Agree	Agree	Not Sure	Disagree	Strongly disagree
1.	ABL method influences students to learn at their own pace	48.0	51.5	-	-	-
2.	ABL Method Helps the students to learn the content easily	13.5	55.0	26.0	2.0	-
3.	ABL Method influences the students to learn the concepts successfully without the maximum help of teachers.	5.0	13.5	19.5	49.5	10.0
4.	ABL Method influences the students to develop their skill.	41.5	43.0	15.0	-	-
5.	ABL Method changes the behaviour among students	40.0	42.0	8.0	10.0	-
6.	ABL method influences the students to share the knowledge among themselves	9.0	40.0	40.5	13.0	2.0
7.	ABL method influences writing practice among students	25.5	25.5	10.5	38.0	-
8.	ABL method reduces the workload of teachers	-	2.0	15.0	33.0	49.0
9.	ABL method increases achievements of the students.	34.0	49.5	15.0	2.0	-
10.	ABL method reinforces the students learning	38.5	49.5	27.0	-	-
11.	ABL method develops the memory power of the students	38.5	49.5	10.0	2.0	-
12.	ABL method reduces examination fear among the students	49.5	46.5	2.0	2.0	-
13.	ABL method develops friendly relationship among students	20.5	55.5	15.0	5.0	2.0
14.	ABL method helps the students to learn the concept silently	2.0	18.0	17.0	48.0	12.0
15.	ABL method develops group learning approach among students	48.0	41.0	8.0	2.0	-
	Average (Percentage)	27.6	38.8	15.2	13.8	4.6

From the above analysis, it has been revealed that ABL approach influences the class room climate of primary education in Perundurai region Erode district. ABL approach influences the students to learn the content

easily. It could be ascribed to various reasons perhaps like motivation, behaviour, knowledge, attitude, aptitude, atmosphere of school learning environment etc. which stand corroborated by almost all students.

'SARVA SHIKSHA ABHIYAM' (SSA) INTERVENTIONS

N. Christal Jeya

Lecturer, DIET, Thirumoothi Nagar, Udumalpet, Coimbatore

"Sarva Shiksha Abhiyan" (SSA) plays a vital role in improving the quality of Elementary Education. Activity Based Learning Method (ABLM), Sigaram Thotta Asiriyargal (Excellent Teachers Award), Achievement Test, Summer Coaching Classes and Active Learning Methodology (ALM) are the major five interventions of SSA. They help to improve the quality of elementary education, through harmonized intervention of technology in classrooms and dissemination of innovative practices in elementary education.

Activity Based Learning Method

In classrooms, most of the time is engaged by the teachers, but if the students engage themselves with the interest in learning activities, they can learn by themselves. Complete learning is possible if children do activities with learning materials, followed by continuous practice through group activities. It does not mean that teachers are not necessary. It is enough if a proper learning atmosphere and guidance are provided. Activity Based Learning has the following salient features for quality learning in elementary schools. Each student

1. Can learn at his/her own pace
2. There is individual learning group learning, and peer group learning.
3. The student can know at what stage he/she is in the learning process.

In most of the schools, even now, multi-grade teaching is prevalent. Activity Based Learning is a solution to the Multi Grade Teaching problem.

Salient features of activity based learning

1. There is no change in the present syllabus.
2. The competencies are divided into various ladders.
3. Each ladder has many learning activities.
4. Each subject has separate ladders.

Use of activity based learning

1. The teacher can spend his/her teaching time to the needy students.
2. The students' involvement in each learning activity is ensured.
3. Even if the student is absent during festival or harvest day when he/she comes back to school he/she can continue learning from the activities where he/she stopped.
4. Activity Based Learning cards are attractive and interesting.
5. The gap between the teacher and the student is very much reduced.
6. The students are free to select the activities they like.
7. The students share their ideas among themselves and so they can develop their communication skill.

Sigaram Thotta Asiriyargal (Excellent teachers award)

- ✧ To motivate the teachers awards are given to teachers
- ✧ to create a competitive spirit among elementary school teachers,
- ✧ to identify and encourage talented teachers,
- ✧ to expose their innovative teaching skills to other teachers,
- ✧ a new scheme called "Sigaram Thotta Asiriyargal" has been introduced.

At the Cluster Resource Centre level competitions were conducted to select the best teachers in all the five subjects. They were selected on the basis of Teaching Learning Material usage, asking questions, interaction with students, etc.

The selected teachers from each Cluster Resource Centre took part in the competitions at the block level. Again the selected teachers at the block level competed at the district

level. The selected teachers from the district proved their mettle at the state level. At each level, the selected teachers were given prizes. Finally at the State Level, the Education Minister himself distributed the Prizes to the winners. DIET faculty acted as judges to select teachers in all subject at all levels.

Achievement Test

Achievement tests were conducted for all subjects. In the Monthly Block consolidated form, the schools in the block were ranked. Pie diagrams and graphs were also prepared according to their pass percentages. The performance analysis of students in cluster schools, best practices and remedial measures to be taken was discussed. The DIET faculty visited the Cluster Resource Centres and prepared reports.

Summer Coaching Classes

During summer vacation of May 2007 coaching classes were arranged by Sarva Shiksha Abhiyan to the elementary school students. Each teacher was given a remuneration of rupees thousand. This scheme made the teachers and the students spend their summer vacation usefully. Letters of the Tamil and English alphabets were mainly concentrated upon.

Active Learning Methodology

Through Active Learning Methodology (ALM) the learner-oriented education is introduced for the middle classes. Hence the Teacher's role is to help the learner to learn and to change the classroom into a learning situation. In Active Learning Methodology, the class room is to be a functional classroom. In the classroom the originality of the students is to be brought out.

Objectives of active learning methodology

The main objectives of Active Learning Methodology are to develop

- Learning skills and self-learning skills
- Capacity to understand
- Self-dependence

Through Active Learning Methodology, the teacher should facilitate the learner.

Basic concepts of active learning methodology

- The learner constructs his/her knowledge
- It creates extraordinary skills for empowering the learner. They are
 - i) Reading
 - ii) Mind-mapping
 - iii) Summarizing / Tabulation
 - iv) Writing questions and answers
 - v) Group Discussions

According to Yeshpal Committee, "Some matters deeply learnt are better than many matters learnt in a shallow manner". The above-mentioned five skills were put into practice in ten schools in Pollachi North Block of Coimbatore District for Pilot Study.

Active Learning Methodology

Before starting the lesson, the teacher motivates and introduces the lesson. It improves the listening skill of the students. After the explanation of the teacher, the students read two or three paragraphs containing a concept. While reading three major works have to be done,

- to underline the difficult and important words,
 - to underline the basic concepts, and
 - to understand the questions arise in the mind. It may be related to the lesson or not.
- It improves the reading skill of the students.

In addition to underlining, the students can resort to other forms of activities like flow chart, drawing of figures to represent ideas, in their own way. This is called mind-mapping, which improves the creative skills of the students. Then the students have to explain in their own words what they have underlined and drawn pictures. It is called the summarizing skill. It improves the speaking skill of the students. After summarizing, the students will be asked to write what they have in their mind regarding the concept. It can be questions and answers. It develops the writing

skill of the students. In the Group discussion, they discuss the underlined words, mind map and questions and answers. It enhances their understanding capacity. Above all, a teacher's role is to be a facilitator, coordinator, supervisor, organizer, etc. The teacher should create the way for learning. In short, the learning will be easier, if all the students follow RMMSWD (Reading, Mind-mapping, Summarizing, Writing and Discussion). By adopting this Active Learning Methodology,

all the four skills namely Listening, Speaking, Reading and Writing along with creativity are developed. The students become active in the class. This method puts an end to mugging up or rote-learning. The four 'R's namely Reading, Reciting, Reviewing and Reflecting are strengthened among the students by this method. On the whole, Active Learning Methodology is a step towards quality improvement in Elementary Schools.

DTERT, Chennai

A STUDY ON THE ORGANIZATION AND FUNCTIONING OF RESIDENTIAL BRIDGE CAMPS (RBC) - SARVA SHIKSHA ABHIYAN (SSA) INTERVENTIONS

Dabbiru Rama Mani

Lecturer, DIET, Bheemenipatnam, Visakapatnam, Andra Pradesh

Residential Bridge Camps (RBC) play a crucial role in mainstreaming the out of school children into formal schools. As per the statistics there are still 4.23 lakhs out of school children in Andhra Pradesh by 2006. With the idea of achieving UEE, the education department under SSA has been organizing RBCs and Non-Residential Bridge Camps (NRBC) to enroll all the out of school children in the age group of 9-14 yrs and make them ready (within a period of 10 months) to be mainstreamed into regular classes suitable to their age. SSA has been funding the RBCs and NRBCs which are run by voluntary organizations and Mandal Education Officers. During 2006-07, RBCs have been established in Visakhapatnam District under SSA. There are still gaps in the organization and functioning of RBCs. The children admitted in RBCs are not in the age group of 9-14 yrs. The teaching methods adopted are not suitable to the heterogenous group of children. The monitoring of RBCs by field functionaries is not effective. The mainstreamed children are not retained in the schools and continue their education. Hence the researcher wants to take up a small scale research to study the gaps and give suggestions for effective functioning of RBCs.

Objective of the study

1. To study the organization and functioning of RBCs and to evaluate their functioning as per norms
2. To study the teaching learning strategies implemented in RBCs.
3. To study the proper utilization of funds released by SSA as per norms.
4. To study the monitoring and supervision of field functionaries.

5. To study the opinion of students and parents on the role of RBCs in fulfilling their educational needs.
6. To study the problems raised in organizing and functioning of RBCs and to suggest remedial measures to overcome the problems.

Sample

1. For the present study the investigator has selected 4 RBC one in urban, 2 in rural and one in tribal Mandals.
2. Sample of students and parents for interview: The researcher has selected 20 students of RBC and 8 parents for interview.
3. Students who were main streamed during 2005-06 into formal schools - @ 4 students from 8 schools in the sample mandals.

Tools of the Research

1. Observation schedule: An observation schedule is prepared to collect the required data about the organization and functioning of RBCs as per the norms.
2. Interview schedule to students and parents.
3. Documents and registers maintained by RBC.
4. Interview with the students who are mainstreamed in formal schools.

Major Findings

1. Majority of RBCs are run by voluntary organizations.
2. The accommodation and the rooms of the RBCs are not convenient and are poorly ventilated. Lack of minimum facilities like both rooms and toilets. There are no separate living rooms, the class rooms are

converted to living rooms in the night time.

3. 39% of the students dropped in class V, 29% in class VI, 22% in class IV, 7% in class III and 3% are never enrolled, which indicate that majority of children are dropping before they are completing primary education and the main share is contributed by girls.
4. The illiteracy of parents in tribal and rural mandals, lack of awareness about the importance of Government schemes, importance of education, child rights and the labour laws are the reasons to withdraw their children from schools and keep them in bread-earning works. Apathy towards girls education is another reason for not sending the girls to schools in tribal areas.
5. The reasons for dropping out from schools (as expressed by children) are: i) 59% of the students dropped out due to parents pressure to help them in house hold work and agricultural assistance. ii) 17% due to illness of parents. iii) 10% due to self-illness. iv) 8% due to non accessibility to U.P and high schools and v) 6% due to lack of interest towards education.
6. It is noticed that attendance of the children during the local festivals is very poor; and another reasons is the illness (fever, measles, skin itching etc.).
7. Abilities of children in language and mathematics: 36% of the children of C & D grade are backward in multiplication and divisions. Out of which girls are lagging behind boys by 30% of the children are not able to write few sentences on their own in Telugu. The condition is still backward in agency RBCs.
8. Majority of the out of school children are STs. Hence there is a need to establish more RBCs in agency mandals.
9. The parents expressed (when interviewed) that they want to send their children to regular schools after the completion of the

course in RBCs. Majority of the parents wish is to have hostel facilities to their children, so that they do not face any hurdle to continue their children education.

10. In urban areas the main reason for dropping out from schools is peer pressure, attraction towards earning petty money, easy accessibility in getting work and broken families.
11. The mainstreamed children during 2005-06 and 2006-07 are 74% and 78% and most of them who are not continuing in regular schools are O.C category children. The reason (as expressed by the teachers) are lack of hostel facility to OC students.
12. Seven day training at divisional and district level are given to instructors, which is not sufficient.
13. Girls enrolled in Telugu project schools and KGBVs are continuing their studies as these schools provide lodging and boarding facilities.
14. The grown up girls are also irregular to the camp. It is understood that during their menstrual period the camp is not convenient to them. Hence they are going home and stay for more than the required days.

Problems faced by the mainstreamed children

1. 35% children in the age group of 12-14 who are admitted in high, schools are irregular and dropping out as they do not have hostel facilities.
2. 56% Other Caste girls in high schools are irregular and the teacher expressed that there girls find difficult to attend schools as their residences are far away from schools.
3. The minimum levels of learning of the mainstreamed children are not up to the expected levels, The children in the age group of 12-14 do not get along with students of the higher classes and they are

irregular to the classes (as expressed by the teacher).

4. In agency mandals, lack of lady teachers in high schools is another factor for dropping out in addition to the above reasons.
5. Lack of proper motivation and follow up on the part of teachers towards the irregular children is observed.

SUGGESTIONS

1. The accommodation of RBCs should be convenient, with minimum amenities like drinking water sufficient number of toilets & bath rooms as the SSA is funding its rent. Before giving permission to the RBCs, the building which is identified for the location of RBC should be inspected by the concerned authorities, as the building also plays an important role for the children to stay and learn in a congenial atmosphere for a period of 10 months.
2. Attendance of children is poor as against its enrolment. Efforts need to be taken by the care taken and the organizer to minimize the irregularity.
3. The dropouts and never enrolled in agency mandals are more when compared to the plain mandals, hence there is a need to establish more number of RBCs in agency mandals.
4. Before mainstreaming the children, the teacher should develop a rapport with the children.
5. The MEO, has to give orientation to the teacher about the mainstreamed children of RBCs, so that teachers adopt suitable strategies and tackle behavioural problems of the children if any, traced during their adjustment with the other children.
6. Before mainstreaming, the instructors should council the children of RBC to make them understand about the regular school.
7. Constructive follow up, supervision and monitoring by the instructors, teachers, and the Mandal team will definitely workout in making the children regular to formal schools and continue their studies.
8. Teachers have to be very specific in organizing co-curricular activities to these children as it has become a part of their life during their stay in RBCs.
9. All the girls have to be accommodated in KGBVS, Telugu project schools and hostels.
10. Stress should be given on children's creative work. Vocational instructor may be appointed to give training in vocational skills.
11. RBC day may be celebrated and the local people, parents may be invited to see the children's creative work, talents and their academic performance.
12. Computer awareness may be given to these students. They may be sent to nearby schools for an hour to expose themselves to computer knowledge.
13. Volunteers trained in Yoga, Karate may be given preference to work in RBCs.
14. Separate RBCs for boys and girls and only women staff should be appointed in girls RBCs (as expressed by the teenage girls).

ROLE OF CAL CENTERS IN IMPROVING THE QUALITY IN ELEMENTARY EDUCATION

N. Kanakachalam

Lecturer, DIET, Perundurai, Erode

Computers are used in the field of teaching ever since the 1960's. According to Warschquer and Healey (1998), this 40-year period can be divided into 3 main stages; behaviorist CAL, Communicative CAL and integrative CAL. Each stage corresponds to a certain level of technology and certain pedagogical theories. Computers are most popular among students either because they are associated with fun and games or because they are considered to be fashionable. Student motivation is therefore increased, especially whenever a variety of activities are offered which make them feel more independent. Network based instruction can help pupils to strengthen their linguistic skills by positively affecting their learning attitude and by helping them to build self-instruction strategies and promote their self-confidence.

The objectives of the study

- ✧ To ensure reinforcement of class room learning,
- ✧ To acquire more knowledge about text related areas,
- ✧ To reduce the fear in operating the computers, and
- ✧ To encourage and teach the students to do simple operation in the computer.

236 students studying in PUMS, Perundurai (East) were selected as sample for the study. The tools used are (i) Achievement test (ii) Interview schedule (iii) Discussion with parents and (iv) Discussion with school faculty. The findings of the study were: This strategy provided an opportunity to the students to know about computer and strengthen their self-confidence and innovative learning behaviour. Class room learning is strongly reinforced by this method. It enhances to collect extra information related to the

content. It develops more interest in computer studies among the students. This idea assures the improvement of students' achievement rate. Comparison of pre-test and post-test scores shows that this strategy has yielded positive results. There is a development of team spirit among students. There is a substantial improvement in learning the theoretical concepts through CAL method. It also minimizes the drop-out rate in Elementary Education. Compared to the other classes, the students are more interested in CAL based class and the learning outcome is also high.

Computer Aided Learning (CAL)

Sarva Shiksha Abhiyan (SSA) was launched with the objectives to achieve Universalization of Elementary Education. It fulfils the constitutional mandate of providing free and compulsory education for life to the children in the age group of 6-14 years. The reduction in drop-out and repetition rate, enhancement in the achievement levels and making learning joyful are some of the objectives of SSA. It was felt that use of Information and Communication Technology (ICT) and computers in the form of Computer Aided Learning (CAL) might help in achieving the above said objectives. Keeping this in view, a component of Computer Education was kept under the Functional Head of 'Innovation' in the frame work of SSA.

Under this component there is a provision of Rs.1.5 lakh per district per year available to the states for CAL.

The main interventions required for introduction of CAL and making use of ICT in Elementary Education are:

- Training of the teachers
- Creation of infrastructure development
- Production of state specific teaching-learning material in local languages.

Role of private sector was considered important in not implementing CAL in elementary state but also for mobilizing additional resources.

Some of the salient features of the CAL center activities are:

- Procurement of Hardware
- Identification of learning related hard spots
- Content development
- Procurement of software
- Development of software
- Public private partnerships

In Tamil Nadu CAL activities are:

- Implemented in every block
- BRC and CRC are equipped with computers
- Software content development in collaboration with Azim Premji Foundation
- 65 CDs were already developed.

Findings

- Classroom learning is strongly reinforced by CAL.
- It enhances interest of learners to collect extra information related to the content.
- It develops more interest in computer studies among the students.
- This idea assures the improvement of students' achievement rate.
- There is a development of team spirit among students.
- There is a substantial improvement in learning the theoretical concepts through CAL method.
- It also minimizes the drop-out rate in Elementary Education.
- Compared to the other classes, the students are more interested in ÇAL based class and the learning outcome is also high.

SARVA SIKSHA ABIYAN (SSA) INTERVENTIONS

M. Sampathkumar

Asst. Teacher, Panchayat Union Primary School, Ammanampakkam,
Kodiyam (PO), Olakkur Block, Tindiavanam (Tk), Villuppuram district

ABL is a new technology in the class room which is framed in experimental methodology by activity (competencies) cards with ladder system. Active knowledge utilization and participatory interaction method plays a main role in ABL process. The most important single factor influencing learning is what the learner knows so, certain this and teach the child accordingly (Philip Riley, 1985). In Tamil Nadu, all the primary schools are modified into ABL School. Importance has been given for learner's centered approach. ABL cards have been well planned and deals with learner's needs, grades and desires in enjoyable experiences. ABL has shown their greatest success in permanent learning experience and self evaluation. ABL scheme achievements shown new path to upper primary school in utilizing. Active learning methodology (ALM) in class rooms.

Ministry of School Education, Tamil Nadu Report (2007-08)

ABL Schools in Tamil Nadu : 37800
Fund Allotted : Rs.12 crores
Grading village schools : Rs.115 crores
For drop-out students : Rs.59.81 crores

Self-Learning Materials

Self-Learning materials in ABL process stimulates the ideas and creativity. Pupils effectively grasp more information and able to frame the knowledge easily by themselves in workbooks, worksheets in all subjects and class room interaction looks lively. There is an independent situation for learning with analyzing ideas. Quality education makes a complete enrollment and the children are physically fit, mentally alert in this innovation. Thus SSA scheme acts as nucleus centres for social and personality development process of elementary level.

Vocational Training

Life Oriented Educational Trainings given to pupils 13500 per school in tailoring, hand designing and handicrafts. Students in elementary level tries to prepare handicrafts by themselves for future earnings.

Special Coaching Classes (SC/ST)

Special coaching classes for upper primary students and residential classes in block resource centre for four days to one week to improve their knowledge. For primary students (I to V Std.) evening classes are conducted in schools for their progress and self confidence.

Computer Aided Learning (Call Centre)

Creativity, reinforcement of learning competencies, hard spots identification are the major steps of CAL centre. Educational technology makes a relationship between rural and urban areas. SSA and APC (Ajim Pramjee Centre) promotes CAL centre in every selected block with 54 compact disc programmes prepared by psychologist, educationalist and technologist. High attention is totally increased in learning activities by CAL centre.

Girls' Education

Due to lack of guidance and poverty, girls are unable to fulfil their educational needs. Teachers, VEC helps to promote their educational needs. To understand them that education is the base for self confidence in their career. Vocational trainings are given to them. For a particular upper primary school Rs.10000 is issued to promote girls education.

Early Childhood Care Education (ECCE)

In every district integrated child development scheme directing early childhood care education for 2-5 years old children.

Special health care methods with two basic skills (Listening and speaking) were given to them. Different types of trainings were given to ECCE workers for the introduction to primary schools of schooling children.

Life Skills Training

Life skills trainings were given to SC/ST students in various schools as a residential camp for self confidence, self-actualization, positive thinking, problem solving, decision making, coping with shyness, loneliness, fear, failure, conflict and criticism. Finally they were given school bags, dictionary and note books. The method of handling SC/ST students in life skills training by the SSA scheme will improve their self-confidence and adjustable to social environment.

Mathematics of Nodals

National Institute of Educational Planning and Administration (NIEPA) is the guidance to increase the literacy rate. Ministry of Human Resource and Development (MHRD) deals the educational needs and utilize the funds through SSA scheme.

The important of in-service training to teachers is a continuous mechanism for the quality improvement of schools. Several schemes are implemented to the teachers by National Council of Educational Research and Training (NCERT) with active involvement of states. Recently SSA also lays emphasis on upgrading of content knowledge and teaching competencies of school teachers through periodic in-service educational activities.

BRC upgrades the teachers content knowledge and enrich their talents through DTER and DIET. CRC provide opportunity to teachers to interact with the fellow teachers and reflect upon their practices, experiences and problems. Thus teaching learning process activated innovatively by SSA scheme.

New Schools and Civil Works

For quality and continuous education schools are very necessary for the learners. New schools are formed according to the strength of the students. SSA grant helps to construct

school buildings by VEC members drinking water, toilet facilities are arranged by the SSA grant.

Inclusive Education of the Disabled (IED)

Children with Special Need (CwSN) are guided by two special teachers in every block in a resource room. They are counseled by special doctors (Medical camp). Inferiority complex of IED learners is totally driven away by the SSA scheme.

Intervention for Our School Children (OSC)

Formation of new schools by own effort of VEC members is education guarantee system (EGS) Government will provide only uniform and free nutritious meals according to their strength. Alternative Innovative Education (AIE), Bridge Course, Back to School Campus, Residential Camps, Mobile Schools are the main innovation to improve the literacy rate and deciding 'Education For All'. These intervention shows the improvement of SSA Project.

EDUSAT Programmes

State level educational programmes conducted by educational authorities guides the importance of teaching learning process. Remedial measures are taken for the improvement of learners. Action research solves the problem of teaching methodology and the teachers improves the quality of elementary education.

National Programme for Education of Girls at Elementary Level (NPEGEL)

Empowerment scheme with SSA project for low literacy rate of girls education. If the literacy rate 42.6%, four school are activated as a model cluster in elementary level.

Kasturba Gandhi Balika Vidhyalay (KGBV)

A residential school for drop-out girls (11-14 years) with vocational training provided opportunity by SSA Schemes.

Indicators of SSA Plans for the Intervention of Education (2006-07)

New Schools	: 360
New Teachers	: 10180
School Buildings	: 672
Additional School Building:	12464
EGS children	: 36133
AIE children	: 68606
Teacher Trained	: 454345
MRW	: 40857 cr
Infrastructure	: 51014 cr
Teacher Grant	: 210264 cr
TLE	: 373 cr

Tamil Nadu SSA Financial Report (up to 31st May 2007)

Total amount	: Rs.557896.81 cr
Expenditure	: Rs.55760.67 cr
Expenditure (%)	: 100%

Government of India - SSA Financial Report (up to 31st May 2007)

Government of India Fund : 1085794.37 cr

State-wise fund	: 378780.99 cr
NER	: 4964.91 cr
Extra Source	: 7548.58 cr
Total Fund	: 1724228.91 cr
Expenditure	: 1477929.70 cr
Expenditure percentage	: 86%

Data & Appreciation (SSA, Government of India)

Construction of addl class room	: 93.90%
Supply of free textbooks	: 92.97%
Drinking water facilities	: 92.52%
Construction of toilets	: 86.61%
Construction of school buildings	: 85.65%
Teachers appointment	: 82.69%
Opening of New Schools	: 75.46%

Conclusion

Today, learners quench their educational thirst by SSA Scheme. Parents, teachers and learners are the partners in this SSA scheme and should work together to make it a great success project towards international level.

ROLE OF CLUSTER ACADEMIC COORDINATOR IN IMPROVEMENT OF QUALITY EDUCATION AT CLUSTER LEVEL

Sushil Kumar Jain and Shri Ram Bandaru

Lecturers, DIET, Raipur CG

The prime role of DIET faculty is regular academic monitoring in all primary and middle schools of the district which is helpful in future planning regarding the district education scenario. Monthly meetings are held at cluster, block, district and state levels regarding different academic activities in the district. The present state shows a major problem, i.e. involvement of Cluster Academic coordinator (CAC) in non-academic activities which is evident from the monthly meetings.

A strategy was planned and named as 'Quality concerns in education at cluster level'. The results were positive. In this method a clear overall picture of the cluster was made available to the CAC by taking the help of other CAC's. The position of schools in the fields of curriculum, syllabus, level of students, other co-curricular activities as sports, cultural activities, mid-day meals, library, health check-up, TLM, last year's Board Exam results etc. are being observed and details collected by CAC's themselves. These observations and details are then analyzed by talking to educationists, public-representatives. The stronger as well as the weaker points are discussed and a future strategy was made. It helped the CAC's in their regular academic role in a positive way.

Objectives of the Study

1. To provide academic information to CACs.
2. To analyze the academic & other works being done by Teacher/CACs.
3. Observation of the present status of different Govt. Schemes in the Cluster.
4. To provide the opportunity to each and every CAC to look at the other clusters and conduct a comparative study.
5. Collection of all the activities done in the cluster as Quality concerns in education at cluster level.
6. To guide the CAC towards Quality in Education academically.
7. Improvement and Consolidation of the relations among CAC, BRCC, Block Academic Coordinator (BAC) Teachers and Public representatives.

Planning/Procedure

A Tribal Block (Gariyabandh) was selected as the area of study. The plan/procedure was as follows:

- Meeting of all CAC's at BRCC on a stipulated date.
- Discussion with all CAC's about the plan i.e. visiting all the primary schools of a cluster by all CAC's and collect observations as per prescribed format. Stay of at least 3 hours in every primary school by the CAC. His stay time is utilized as follows:

Class-3 : 40 minutes.

Class-4 : 40 minutes

These eighty minutes are used for class observation & rest of the time in collection of other activities done in the School.

- The Class observation activity involved observation, level of Students in different Subjects, whether Home-work is given or not, corrected or not, whether they can recite tables, read lessons use of TLM, cleanliness of classrooms comments of CAC etc.
- The School observation included cleanliness of school building, plantation of trees, library, sports, cultural active, health check-up etc.

- Other details included are mid-day meals, relationship between parents and school, community and school, work done by CAC etc.
- A short report was made regarding each and every school.
- During the second half of the day all CACs assembled at the CRC where they, one by one presented their reports in front of some parents, community members, CAC of that cluster, BRCC, DIET faculty members and Teachers.
- All the points were discussed, the good works being done by teacher were made known to all. The drawbacks/short-comings were dealt by forming a strategy to overcome.
- A document was prepared including all the information of the cluster.

Limitation / Sample / Format

The tribal block of 'Gariyaband' of Raipur district was selected for this work. A cluster in the block was selected randomly and the work was done as per the planning. A format was prepared in a meeting where DIET Principal, BEO, BRCC and CACs were present. Educationists from CTE, SCERT, were consulted and the format was finalized. This format was used in the formation of the document.

The same format is to be used for other clusters as well. An observation format was also developed which was to be used

by CAC's to put their views on issues as use of TLM, cleanliness of school campus and views or given by CACs others in previous monitoring.

Inference

In this process/format except the home CAC all the other CACs were sent to different schools. After spending 3 hours in the school, observing, they returned to the cluster resource centre and presented the reports of different schools in prescribed format in front of BRCC/DIET faculty members, Teachers & Parents. The host CAC noted the main points in a register. In this way a quality concern cluster document was formed. The other officials present there expressed their views and guided the CAC. The Results were:

- The host CAC got the information about various activities in the cluster by observation of other CACs.
- A possibility of comparative study of different activities taking place in different clusters.
- A clear picture of works done towards Quality in Education by Teachers/Parents / CACs Community members etc.
- All activities of the cluster collected as Quality concerns in Education at cluster level.
- On the basis of the above document, the host CAC was given guidelines regarding improvement of Quality in Education.

INTERVENTIONS OF SSA AMONG THE STAKE-HOLDERS OF VILLUPURAM DISTRICT - AN EMPIRICAL STUDY

P. Lakshmipathyraju

Principal, DIET, G. Ariyur, Villupuram (Dt)

Sarva Shiksha Abhiyan (SSA) has been launched since from 2000-2001 with the broad vision and mission in our state. In order to improve the quality of primary education in schools and also to access schooling facilities with learning environment to all school going children varieties of activities are being under taken under SSA schemes and also special schemes were implemented to provide education especially to the girls, dropouts street children and the deprived sectors of the society. By organizing committees at various levels community is involved and participated for the betterment and development of school and primary education and by mobilizing the resources from them.

Teacher are being given various kinds of trainings in order to improve the quality of education and for the effective transaction and teaching learning process at the gross root level (i.e. in the classrooms) under SSA schemes. Also schools are given grants and teacher grants for the development and betterment of school in all dimensions. Enormous activities are being carried out to full fill the goals and missions of SSA with in 2010.

Rationale

People in rural areas are aware of SSA as it involved villagers directly or indirectly. The investigator, wished to know about the opinion on SSA schemes and school activities among the rural area, since the literacy rate of the district is very low about 55.4% (Population census 2001 and HHS.2005)

It is decided to know about the aspirations and opinions of the stake holders especially the parents and teachers regarding the schemes of present primary education scenario.

It is felt that better to assess and check all our activities related with the mission and goals of

SSA periodically, will help us to chanalize the right direction and strengthen the lacunae which come across in our strategies.

Since it is a joint venture, Education for All will be successful, if all levels of stake-holders and education personnel pool their efforts towards the goals of SSA.

Objectives

- To find out the opinion of the rural public about the present elementary education scenario after the implementation and function of SSA (Education for All) and compare with that of the teacher in schools.
- And also to know about the rural public society regarding their awareness about the interventions of the SSA and about the school activities and how far they involved in them
- To find out how far the teacher in the system internalized the interventions of SSA and its goals.

Tool

An opinionnaire consist of 15 items has been constructed related with SSA interventions for parents and teacher separately along with open ended item in order to expose their views freely.

Only two point scale. (Yes/No and True/False) items were constructed to collect the data from the subjects.

Sample

The sample of the study were 100 subjects (50 parents & 50 teachers). Its was planned to administer the tool to the subjects randomly 50 parents near by the rural primary and Upper Primary schools of Thirukovilur Block of Villupuram District and 50-teachers who are working in primary and upper primary schools to collect the data without prior intimation or selection.

Method

The study was conducted as a survey by administering the two point scale opinionnaire to the subjects randomly to collect the data. An open ended item also given in that in order to collect their views and opinions freely. The subjects were asked to response the opinionnaire without prior intimation and after their response, sheets were collected immediately.

Findings: Teacher's Opinion

SSA interventions

Out of 50 teachers, 77.95% of the teachers have the positive opinion about SSA interventions; where as 80.2% of the parents from the rural area were well aware of the SSA interventions out of 50 parents.

Enrolment

The major components of SSA have been analyzed item wise, of these, towards improvement of students enrolment, 91.83% of teachers have positive and rest of them have the negative opinion.

Dropout

Regarding dropout, after implementation of SSA schemes, 20.41% of teachers have the opinion of dropout is still a persistent problem.

Over Burden

It was observed that 63.27% of teachers felt that they have over burdened because of SSA schemes.

Trainings

81.63% of teachers have the positive opinion about the trainings given through CRCs.

VEC

And 91.83% of teachers felt that the VEC and its duties and responsibilities will enhance the quality of school processes.

Parent's Opinion

Improvement in Education

- The item wise analyze of parent's opinionnaire reveals that 95.23% of parents have the positive opinion that their children's education were improved after SSA implementation.
- 71.42% of parents were found to have the positive opinion about the school functions. Most of the parents about 73.87% not prepared to involve directly for the school developmental activities.
- And further, 64.28% of parents were not satisfied with the activities of SSA and wanted still more beneficiaries.
- Only 21.43% of parents have negative opinion about the VEC activities and functions.
- Most of the parents, nearly 90.47%, have the positive opinion that people in rural areas have the awareness on duration of the implementation of SSA schemes.

Conclusion

Since education is the basis for all growth; growth of individual, growth of nation, growth of world and in general growth of humanity, the children in primary level should be give quality education. After implementation of SSA Schemes, people have awareness on the importance of education and begin to share their contributions and resources for the betterment of school and for the quality improvement. It will also necessary to identify the voluntary resources from the society including manpower for the development of education. Both teachers and society should whole heartedly internalize the missions, vision and goals of SS. Teachers still have to modify their mind set according to aim at better future education. It will pave a way to achieve the goals of SSA within 2010.

EFFECTIVENESS OF GRAPH SHEET CLASSROOM OBSERVATION FORM IN TEACHING LEARNING ACTIVITIES OF DTE STUDENT

P. Mani* and A. P. Janagiraman**

*Lecturer, DIET, Ranipet

**Headmaster, PUM School, Paratharami, Timiri Block, Vellore District

Teaching is the act of imparting knowledge and skills by the way of lecture, demonstration, seminar or any appropriate method that facilitate learning of students in an educational institution. Teaching is an act of sharing of knowledge, values, understanding, skills and competencies. Teacher trainees during the observation process improve their behavior by means of acquiring new knowledge, values, skills, inter and intrapersonal relationship and such other competencies in different fields. The classroom observation helps to learn teaching methods and it plays a most important part in the initial training of teachers. There is need for new classroom observation form to quantify the classroom teaching methodologies. So the investigator develops a new approach to solve these problem among the DTE students.

Need for Study

The present observation format has eleven components. It was filled by DTE students for their classroom observation. The investigator identified the problem of understanding the methodology followed by the teacher. This problem was recorded in the observation record of the student. They did not know the exact methodology adopted by the teacher. The new innovative technique solved this problem using graph sheet classroom observation form for their observation.

Objectives

1. To help student-teachers acquire better classroom observation techniques.
2. To enable student-teachers identify the different types of methodologies.
3. To ensure the individualized instructions and group instruction to equip student-teachers.
4. To help student-teachers know the appropriate methods of teaching and learning activities.
5. To identify and quantify the classroom activities and record to identify the methodology both quantitative and qualitative.

Effective teaching learning activities

In order to effective, a teacher should be the master of several different styles or approaches. The teacher trainee first try to discover the style of teaching and learning of each classes. The ability of perceive differences in learning behavior of various students and to adjust teaching style accordingly is one of the most important attributes of an effective teacher. Basically, ways of teaching and learning in the classroom can be divided into three main categories based on Bloom's Taxonomy.

Activities

1. Laboratory experiments
2. Work book exercises
3. Problem solving
4. Preparation of reports
5. Project
6. Research activities

Discussion

1. Lecture and demonstration method
2. Peer snoop discussion
3. Brain storming
4. Teacher and student
5. Arguments and conversations
6. Any other Discussion

Presentations of information

1. Lecture method
2. Presentation
3. Power point presentation
4. A. V. Materials

5. Demonstration
6. Any other presentation

Step 1

To explain the DTE student how to use the Graph Sheet for classroom observation.

Step 2

Consolidate the different methodology used by teacher subject wise.

Step 3

Find out the appropriate methodology

Step 4

Conclude the suitable methodology to be adapted for future classroom teaching practices.

Sample Graph sheet classroom observation form tick mark (✓) for suitable methodology

Name of the School : _____
Name of the Teacher : _____
Standard : _____ Section : _____
Subject : _____ Time : _____

Date & Time	Methodology: Topic	Activities	Discussion	Presentation	AUBUC	Any other method	Note
Total							

Educational Implication

1. Anecdotal records will probably be most helpful in evaluating the appropriate teaching learning process.
2. It can be used to develop a new strategies of teaching learning process.
3. It is useful to assess, what teaching method predominates in the classroom.
4. It helps to understand the different types of methodology.

5. It is used to qualitative and quantitative assessment of classroom learning process.

In this new graph sheet classroom observation, a consolidation of different types of teaching methodologies was possible during their observation. So the teacher trainee deduced, what teaching method is pre-dominant in particular subject. The teacher trainees are capable of expressing the correct methodology and judge the quality of the teaching learning activities.

THE IMPACT OF GAMES IN TEACHING ENGLISH GRAMMAR

V. Elangovan

Lecturer in English, District Institute of Education and Training,
Perundurai, Erode Dt.

Of all the languages in the world English deserves to be regarded as a world language. It is the common means of communication between the people of different nations. A very important reason for regarding English as a world language is that the world's knowledge is enshrined in English. Hence it is deemed to be the best second language to bridge the communication among the countries having different linguistic backgrounds.

Teaching of English as a second language

Learning English is essentially a deliberate effort at developing a command and control of the different components of the language; its phonology, its morphology and its syntax. A very important pre-requisite for teaching a second language is the availability of competent teachers. For competent teachers, different approaches, techniques and strategies help and simplify their transactions and make the learners acquire the skills easily.

Problems in Teaching English Grammar

A knowledge of grammar is perhaps more important to a second - language learner than to a native speaker. This is because in the process of acquiring the language the native speaker has intuitively internalized the grammar of the language whereas the second language learner has to make a conscious effort to master those aspects of the language which account for grammaticality. It is therefore necessary for us to whom English as a second language to learn the grammar of the language. Most of us do not have very pleasant memories of grammar classes during our school days. It is a great challenge to the teachers of English to teach grammar in an interesting way because most of the students generally used to dread it not renounce grammar. Perhaps this is due to the traditional

approach to teaching grammar. The traditional pattern of presenting the grammar in the 'Deductive Method' poses learning grammar as a monotonous activity. Emphasis on learning definitions and terminologies made grammar solely theoretical. Owing to these reasons, most of the students are taken back for learning grammar.

Every language has its grammar and it is very important because acceptability and intelligibility both in speech and in writing depend on the currently followed basic notions and norms of grammaticality. Therefore grammar teaching should be made enjoyable for the learners.

Need for the study

Since knowledge of grammar is essential for better communication, the learners should be given such knowledge through various techniques inspite of the difficulties in the areas or boredom in the routine type of teaching. Hence the easy ways of teaching grammar should be designed and presented to the learners. This study is considered to be necessary for throwing lights on such simplified ways of teaching grammar.

Teaching of Grammar through Games

A research study was undertaken by the investigator to assess the impact of Grammar games in making the second language learner learn grammar effectively.

Objectives

- To introduce simplified ways of teaching English grammar
- To ward off the monotonous nature of grammar classes
- To develop a command over English grammar among the Second language learners.

- To create a favourable attitude among them towards learning grammar.

Sample

31 Students studying in Standard VII in Government High School, Therpatti, Dharapuram Union, Erode District were taken as sample group for this study.

Methodology

The sample group was taught grammar items viz. Present Continuous Tense, Conjunctions, Use of Simple Present Tense for habitual

Actions, and Passive Voice with the help of grammar games such as

"What am I doing"?

"Noughts and crosses"

"Tomatoes are red"

"The burglary".

Data Analysis

The scores obtained by the sample group students both in the pretest and the post test were analyzed and tabulated as follows:

Test	N	M	SD	Calculated 't' value	Table value	Level of significance
Pre-Test	31	31.83	11.20	4.29	2.457	1%
Post Test	31	66.25	16.11			

Implications

After completing the research study, the following implications were brought-out-

- Games help to motivate learners and sustain their interest in learning grammar.
- They help the teacher to create useful and meaningful contexts.
- They provide practice in all the four skills LSRW.
- They have a diagnostic role and provide situations of genuine information gap.

- They fill up all the learning arrears regarding grammar learning.

Conclusion

The use of games for teaching grammar makes learning interesting and provides opportunities for learners to use language for communication. It helps the learners to be engaged active language use and be involved in communication.

ROLE OF THE SCIENCE TEACHER IN SUSTAINING SCIENTIFIC INQUIRY AMONG THE PRIMARY SCHOOL STUDENTS AND INSPIRING THEM TO BECOME ENDURING AUTONOMOUS LEARNERS

P. Kamalee

Lecturer, DIET, Kilpennathur, Thiruvannamalai Dt.

*When learning is powerful, creativity blossoms
When creativity blossoms, thinking emanates
When thinking emanates, knowledge is fully lit
When knowledge is fully lit, economy flourishes*

Dr. Kalam

Science is a cumulative and endless series of empirical observations which results in the formation of concepts and theories, with both concepts and theories being subject to modification under further observations. Science is both a body of knowledge and the process of acquiring it. During the past five decades it bears a witness to knowledge explosion and can no longer be ignored. Despite the tremendous progress in science and technology, schools in India have not succeeded in creating scientific awareness among students. Perhaps, the fault lies with the science teachers. They should not only have adequate knowledge but also be familiar with the processes of science.

Need for the Scientific Inquiry

Today, science is imparted only as knowledge and less significance is given to attitude towards science and method of inquiry. Importance is being given to what is merely being reproduced in the papers and the children are not provided with an education that gives an opportunity to develop the inherent creativity. At primary level of education, mostly the students are generally forced in to a methodology which provides him with too little opportunity to self-observation. Though teachers have sufficient acquaintance with the methodologies, it is formless when it comes to scientific inquiry. This provides the children with mere purchase of facts, which leads to apathetic attitude towards learning. Secondary education, to a large extent, reflects the quality inherited from

the elementary stages of education. Therefore much effort is required to enhance the quality of elementary education which otherwise may serve as a constraint for the secondary education. If science is effectively taught and learnt, most of the human problems can be minimized by adopting science concepts in daily life. The science teacher has an incredible responsibility in shaping the life of an individual.

Appreciating Scientific Inquiry

The teaching methodology plays a significant role in the teaching process. From the earliest grades, students should experience science in a form that engages them in active constructions of ideas and explanations, which enhance the opportunities to develop the abilities of exploring science. Scientific inquiry is considered as one of the best science teaching method, as it

- Involves asking questions, answering to it and comparing those with what the scientists have already established.
- Uses different kinds of investigations depending upon the questions.
- Uses simple instruments which provide more information.
- Helps in using their observations to construct reasonable explanations for the questions posed.
- Involves development of explanations about their observations.

Stages of Scientific inquiry

- Stating the problem
- Designing an approach
- Implementing a solution
- Evaluating the solution
- Communicating the problem, design and solution.

Responsibility of a Science Teacher

A science teacher should not just transmit the contents into the minds of the pupil. Instead, teach the students the process of learning and enable them to become *lifelong autonomous learners*. A science teacher

- should develop scientific inquiry skills in students from primary level
- should ignite the minds of students
- should build confidence among the students to be innovative and creative
- should inculcate values that augment the learning capacity of children
- should fabricate the skills and knowledge of science as they apply to personal decisions.

Teachers are normally attracted towards the few best performing students and constantly encourage them. Instead, they should facilitate better understanding and learning in those students who are weak in studies. An efficient science teacher alone can provide qualitative education. A science teacher must develop the capacity for research and enquiry; creativity and innovation; artistic transfer of knowledge and ability to use high technology, to become efficient. All these qualities should be inhabited to science teachers.

Stratagems to the teachers for surfacing scientific inquiry among primary school students

- Plan and conduct simple investigations. At the primary level, investigations are largely based on systematic observations.
- Make use of simple tools and equipments to gather data. At primary level, students are allowed to use scales to measure lengths, stop watch to measure time, thermometers to measure temperature, beam and spring balance to measure weights and microscopes to observe micro organisms. This emphasizes students develop simple skills like observing, measuring, cutting, connecting, turning on and off, pouring, tying and hooking.

- Help out the students to use the data to construct reasonable explanations. Even at primary level, the students should learn to put forward an explanation and check it against the scientific knowledge, experiences and observations of others.
- Facilitate the students to communicate, scrutinize and analyze their work and the work of others. This communication might be spoken or written.
- Arrange field trips of educational interests. This promotes inquisitiveness in the student.

Inspiring primary students to become enduring autonomous learners

When a student at primary school level is provided theoretical lessons coupled with practical examples from nature, it injects creativity, enhances his learning capacity and builds confidence within him. If a student is provided with a background of scientific inquiry at his primary level, no doubt he inhibits in him, a craze for knowledge. This experience of self-observation, unfolds the innovative powers, develops the capacity for research and enquiry among students and ensures the creation of autonomous future learners. By providing this experience, an instructor helps the students to pound the "I can do it spirit" throughout the process of learning.

Conclusion

Secondary education, to a large extent, reflects the quality inherited from the elementary stages of education. Therefore much effort is required to enhance the quality of elementary education which otherwise may serve as a constraint for the secondary education. To overcome this hurdle, a teacher should accept the aspects discussed and practice them. This would lead to a tremendous change in the elementary education. Every child would be motivated towards the appreciation of science. This, in turn, would provide a path towards enduring autonomous learning.

INNOVATIVE PRACTICES FOR INTRODUCING DIRECTION AND SCALE

K. Lognathan

Headmaster, P.U. Elementary School, Mohamedpet, Thimiri, Vellore District

A teacher can be innovative in teaching any subject. Instead of using the traditional methods, innovative way of introducing directions and scale has been presented in this article.

Direction

The simplest way for a teacher to introduce direction is to ask the children to find out where the sun rises in the morning. This direction is called the East. Ask the children to stand with their right hand out-stretched to the East. The left hand direction is called West whilst the child faces the North and has his back to the South.

The children should draw the four directional points on the classroom floor. The teacher should take special care to see that children understand the term Right Angle before they draw the directional points. Introduce the children to the working of a compass. Emphasis that it is the needle point which always turns to the NORTH and not the letter "N" on the compass which shows the direction. When mapping the children should realize the necessity to indicate the North direction? The children can be asked to make a list of the things they see when they look North - the same can be done for the other three directions.

After much practice in finding the four directions the Teacher can gradually introduce the intermediary points N.E., S.W., etc. Here is an outdoor exercise which the children will enjoy. The teacher should draw the following chalk lines on the playground: One child can be asked to start walking along the lines and name the direction in which he is traveling. Plenty of activities should be carried out to familiarize children with the directional points.

Obtain a Bar Magnet and allow the children to experience its magnetic properties in relation to metals. Suspend this bar magnet by two loops of thread. Twist the magnet and allow it to come to a stationary position. The Pole mark N will point North. Show children a Magnetic Needle. Allow it to swing freely and come to a stop. Check its North seeking and South seeking Poles and mark them on the needle by painting the North red.

Now show the children a Magnetic compass. Place the magnetic needle on a flat cork and float this in a bowl of water. The direction of North can now be seen.

Introduction to Scale and Grid Lines

Let the children cut out strips of ribbon or paper equal in length to their heights.

In order to make the children realize the need for scale, some of these strips can be pinned upon a chart for comparison of heights. Seeing the strips are too long for the paper some children may suggest folding the strip into halves or quarters. The children may be asked to stick their height strips into their exercise books. The children now see the need for folding the strip even further reducing the scale. The teacher can now explain to the children the fact that engineers and architects, when drawing plans of large buildings and bridges, use squared paper. The dimensions of the building are reduced to a suitable scale - just as the children have done above.

Drawing of a Table top to scale






Step-1: Pose the following question to the children: "How would you draw the plan of your table to fit it into your exercise books? (squared paper)" If the children cannot find a solution, the teacher can now draw convenient large squares on the table like this:

	1	2	3	4	5	6	7	8	9	10
A										
B										
C										

Having done this now get the children to copy this in their squared books and letter and number the squares, as shown in the diagram. This is an introduction to Grid Lines.

Step-2: Place a book and any other object on the table top and ask the children to include these objects in the next plan.

Many games can be played with the class by shifting the objects and asking the children to denote their position in terms of the letter and number e.g. the box is in square E1 whilst the book is in square A2, D6, B9, F11.

	1	2	3	4	5	6	7	8	9	10	11	12	13
A													
B													
C													
D													
E													
F													
G													

Please note that in the grid references, the convention is that the horizontal symbols appear before the vertical.

Step-3: Refer to the diagram of the Table Top with objects on it and answer the following questions:

- Find the centre square (in this case C2)
- With reference to this centre square give the directions of the following squares:
A2, E2, C1, C3 Eg. (A2 - West of C2)
B1, D3, D1, B3 (B3 - N.W. C2)

- Square B3 is north west of which two squares?
- Which two squares lie South West of D3?
- What lies S.E.N.E.S.W.N.W. of square D3?

This exercise could actually be carried out on the playground with the squares and grid lines chalked in and the children could move in the directions called out by the teacher or another child. These are only samples and there is no limit to the practices of innovation not only in Maths and science but also in other subjects.

PRACTISING OF COINING AND READING OF ENGLISH WORDS

K. S. Venkata Raman

P.G. Teacher (English), Government Higher Secondary School
Thumbur, Asokapuri Post, Villupuram Dt

H. W. Beacher says, "Thinking cannot be clear till it has had expression. We must write, or speak, or act our thoughts, or they will remain in half torpid form. Our feelings must have expression, or they will be as clouds, which, till they descend in rain, will never bring up fruit or flower. So it is with all the inward feelings, expression gives them development. Thought is the blossom, language the opening bud; action the fruit behind it."

Hence a language enables a man to express his thoughts and feelings. Some competencies are necessary for clear expression of any language. Some of the basic competencies are listening, speaking, reading and writing. When a child is guided properly from the beginning he can express his thoughts clearly and effectively.

Importance of Reading

Francis Bacon rightly says, "Reading maketh a full man." To become a full man, the children first learn to read and then read to learn. Reading process opens the doors towards knowledge. Reading habit enables a child:

- To pronounce words
- To recognize the meaning of words
- To interpret
- To ask question
- To get facts accurately
- To express the thoughts in words
- To spend time meaningfully.

English Alphabets and Phonemes

The English alphabet has twenty-six letters but the language has about forty four phonemes. Out of 26 alphabets, 5 letters give vowel

sounds and 21 letters give consonant sounds. The alphabets are only taught in schools but phonemes are used to pronounce English words. Five alphabets are used for 12 vowels and 8 diphthongs. Out of 21 consonants, 15 consonants usually have their own shapes and phonemic sounds. Some letters of the alphabet will have to do multiple duties and represent more than one sound. Some of the letters are used in spelling and they are silent. Some silent letters and words are:

- a : carriage, marriage
- b : comb, dumb, lamb, numb, thumb
- c : indict
- d : Wednesday
- e : axe, bare, endure, revive, shore, throne
- g : align, design, gnome, reign, sign
- h : hour, ghost, rhymes
- i : friend
- k : know, knot, knead
- l : balm, calf, folk, half, yolk
- n : autumn, column, hymn, solemn
- p : psalm, psychology
- r : alter, bar, cart, part

All these makes the children to confuse while reading English.

English alphabets and their sounds in Tamil

English alphabetical sounds may be taught through Tamil alphabetical sounds. When the children become familiar with the English sounds, the way of pronouncing a word letter by letter may be taught. It is only an initiative to draw the children towards reading English. The following Table showing the sounds of English alphabets:

S. No.	English alphabets	English Phonetic Symbols and signs	Equivalent Tamil alphabets	Examples
VOWELS				
1.	a o u oo	^	அ	arrive, <u>a</u> llow o <u>b</u> serve, o <u>b</u> tain su <u>n</u> , gu <u>n</u> bloo <u>d</u> , floo <u>d</u>
2.	a o	a:	ஆ	art, <u>a</u> sk o <u>ff</u> ice, o <u>r</u> ange
3.	e i y	i	இ	ce <u>m</u> ent, ea <u>r</u> i <u>n</u> k, mi <u>l</u> k ha <u>pp</u> y, me <u>r</u> cy
4.	ea ee ie	i:	ஈ	ea <u>t</u> , rea <u>d</u> , hea <u>t</u> se <u>e</u> d, fee <u>l</u> shie <u>ld</u> , yie <u>ld</u>
5.	u oo	u	உ	fu <u>ll</u> , pu <u>t</u> go <u>o</u> d, bo <u>o</u> k
6.	u oo	u:	ஊ	fu <u>t</u> ure, tu <u>t</u> or ro <u>o</u> ff, too <u>th</u>
7.	e	e	எ	egg, re <u>d</u>
8.	a	-	ஏ	ai <u>r</u> , a <u>r</u> ea, la <u>k</u> e
9.	i y	ai	ஐ	li <u>f</u> e, mi <u>n</u> d rhy <u>m</u> e, ty <u>r</u> e
10.	o oo	əu	ஔ	co <u>l</u> d, ro <u>ll</u> do <u>o</u> r, flo <u>o</u> r
11.	ou	au	ஔ	do <u>u</u> bt, sto <u>u</u> t
CONSONANTS				
1.	c k q ch	k	க	ca <u>r</u> , cu <u>t</u> kee <u>p</u> , ki <u>n</u> g que <u>e</u> n, qui <u>c</u> k cho <u>r</u> d, che <u>m</u> istry
2.	g gh	g	க	ga <u>m</u> e, gi <u>v</u> e ghee, gho <u>s</u> t
3.	ng	ŋ	ங்	ri <u>n</u> g, wi <u>n</u> g, so <u>n</u> g
4.	ch	tʃ	ச்	cha <u>i</u> r, chi <u>n</u>
5.	g j	dʒ	ஜ்	ge <u>m</u> , ge <u>n</u> tle ja <u>m</u> , ju <u>g</u>

S. No.	English alphabets	English Phonetic Symbols and signs	Equivalent Tamil alphabets	Examples
6.	t	t	ட	<u>t</u> ake, <u>t</u> opic
7.	d	d	ட	<u>d</u> ay, <u>d</u> eer, <u>d</u> oll
8.	n	n	ன்	<u>n</u> eck, <u>n</u> ice, <u>n</u> ose
9.	th	θ	த்	<u>t</u> hin, <u>w</u> orth
10.	dh	ð	த்	<u>t</u> hen, <u>t</u> his
11.	p	p	ப்	<u>p</u> arrot, <u>p</u> ond
12.	b	b	ப்	<u>b</u> aby, <u>b</u> un, <u>b</u> iscuit
13.	f ph	f	ஃப்	<u>f</u> ace, <u>f</u> ine, <u>f</u> ond <u>ph</u> one, <u>ph</u> ysics
14.	m	m	ம்	<u>m</u> an, <u>m</u> oon, <u>m</u> ice, <u>m</u> ug
15.	y	j	ய்	<u>y</u> awn, <u>y</u> es, <u>y</u> ield, <u>y</u> oga
16.	r	r	ர்	<u>r</u> ain, <u>r</u> iver, <u>r</u> ose
17.	l	l	ல்	<u>l</u> ady, <u>l</u> ens, <u>l</u> iver, <u>l</u> ord
18.	v	v	வ்	<u>v</u> an, <u>v</u> isit, <u>v</u> oyage
19.	w	w	வ்	<u>w</u> ater, <u>w</u> ell, <u>w</u> inter
20.	c s	s	ஸ்	<u>c</u> ell, <u>c</u> ycle <u>s</u> ame, <u>s</u> end, <u>s</u> ing
21.	x z	z	ஸ்	<u>x</u> erox, <u>x</u> ylophone <u>z</u> ebra, <u>z</u> igzag
22.	sh tio	j	ஷ்	<u>sh</u> ip, <u>sh</u> eam, <u>sh</u> ame <u>tio</u> n, <u>lotio</u> n
23.	h	h	ஹ்	<u>h</u> appy, <u>h</u> en, <u>h</u> oly
24.	x	-	க்ஸ்	<u>t</u> ax, <u>b</u> ox
25.	u	j	யூ	<u>u</u> nion, <u>u</u> nique

Coining and Pronunciation of English

In other languages, consonants combined with vowels to form a new letter with a new sound is found. For example, in Tamil, ம் + ஆ = மா. Such new letter are not found in English

language. The vowel letter present before a consonant sounds alone. Whereas the vowel letter after a consonant letter produces a new sound to that consonant with respect to that vowel letter.

Some illustrations regarding coining of words are given below:

1.	aroma	a அ	r+o=ro ர்+ஒ=ரோ	m+a=ma ம்+ஆ=மா	= அரோமா
2.	brother	b ப்	r+o=ro ர்+அ=ர	th+e=the த்+எ=தெ	r ர் = ப்ரதெர்
3.	sun	s+u=su ஸ்அ=ஸ	n ன்		= ஸன்
4.	ghat	gh+a=gha க்+ஆ=கா	t ட்		= காட்
5.	ordinal	o ஆ	r ர்	d+i=di ட்+இ=டி	n+a=na ன்+அ=னல் = ஆர்டினல்
6.	effect	e இ	f ஃப்	f+e=fe ஃப்+எஃஃப்	c க் t ட் = இஃஃஃப்.ஃஃஃப்
7.	uniform	u யூ	n+i=ni ன்+இ=னி	f+o=fo ஃப்+ஆ=ஃப்	r ர் m ம் = யூனிஃஃஃப்.ஃஃஃப்
8.	swing	s ஸ்	w+i=wi வ்+இ=வி	ng ங்	= ஸ்விங்
9.	cinema	c+i=ci ஸ்+இ=ஸி	n+e=ne ன்+இ=னி	m+a=ma ம்+ஆ=மா	= ஸினிமா
10.	cherry	ch+e=che ச்+இ=செ	r ர்	r+y=ry ர்+இ=ரி	= செர்ரி
11.	leak	l+ea=lea ல்+ஈ=லீ	k க்		= லீக்
12.	jeep	j+ee=jee ஜ்+ஈ=ஜீ	p ப்		= ஜீப்
13.	three	th த்	r+ee=ree ர்+ஈ=ரீ		= த்ரீ
14.	shield	sh+ie=shie ஷ்+ஈ=ஷீ	l ல்	d ட்	= ஷீல்ட்
15.	yield	y+ie=yie ய்+ஈ=யீ	l ல்	d ட்	= யீல்ட்
16.	pull	p+u=pu ப்+உ=பு	l ல்	l ல்	= புல்

17.	look	l+oo=loo ல்+உ=லு	k க்			=	லுக்
18.	judo	j+u=ju ஜ்+உ=ஜு	d+o=do ட்+ஓ=டோ			=	ஜுடோ
19.	cool	c+oo க்+ஊ=கூ	l ல்			=	கூல்
20.	school	s ஸ்	ch+oo=choo க்+ஊ=கூ	l ல்		=	ஸ்கூல்
21.	elephant	e ஏ	l+e=le ல்+இ=லி	ph+a=pha ஃ.ப்+அ=ஃ.ப	n ன்	t ட்	= எலிஃ.பன்ட்
22.	yellow	y+e=ye ய்+ஏ=யே	ll+o=llo ல்+ஓ=லோ	w வ்		=	யெல்லோ
23.	xenon	x+e=xe ஸ்+ஏ=சே	n+o=no ன்+ஆ=னா	n ன்		=	செனான்
24.	ape	a ஏ	p+e=pe ப்+இ=ப்			=	ஏப்
25.	ration	r+a=ra ர்+ஏ=ரே	tio த்	n ன்		=	ரேஷன்
26.	wax	w+a=wa வ்+ஏ=வே	x க்ஸ்			=	வேக்ஸ்
27.	childhood	ch+i=chi ச்+ஐ=சை	l ல்	d ட்	h+oo=hoo d ஹ்+உ=ஹுட்	=	சைல்ட்ஹுட்
28.	typology	t+y=ty ட்+ஐ=டை	p+o=po ப்+ஆ=பா	l+o=lo ல்+அ=ல	g+y=gy ஜ்+இ=ஜி	=	டைபாலஜி
29.	over	o ஓ	v+e=ve வ்+ஏ=வ	r ர்		=	ஓவர்
30.	go	g+o=go க்+ஓ=கோ				=	கோ
31.	quote	q+u=qu க்+யூ=க்	o ஓ	t+e=te ட்+இ=ட்		=	கோட்
33.	shout	sh+ou=shou ஷ்+ஓ=ஷோ	t ட்			=	ஷோட்

Hence by practicing in this way, the children can read the words slowly. In due course they will read fast. They will be able to spell the words without mistake.

When we say /w/, we should use just our lips and not the teeth at all. But when we utter /v/, the lower lip touches the upper teeth.

Advantages of this method of reading English

- It motivates the children towards reading English.
- It cultivates regular reading.

- Reading competency is improved. Hence it leads to understanding.
- Most of the words can be syllabified easily
- Coining of words results correct spelling

Conclusion

Reading competency has become an integral part of learning. Nowadays, most of the schools are preparing the children towards examinations. Most of the children do not read textbooks and they depend on guides which is basically a wrong way of learning. Hence reading habit has to be improved and quality education should be provided to the children.

DTERT, Chennai

ROLE OF E-LEARNING IN ENRICHING TEACHER EDUCATION

P. Gershom Jebaraj¹ and Dr. K. Mohanasundaram²

¹Lecturer in Physics, E. S. College of Engineering & Technology, Villuppuram

²Reader, Government College of Education, Orathanad

In this new millennium, modern technology plays inevitable role in our lives and the size of the world has been reduced to the size of a nano chip. Technological revolution poses tremendous challenges to educators to rethink their basic tenets, to apply technology in creative way to redesign education to respond positively to the socio-economic and cultural changes of today. In this context Teacher Education really needs a lot of re-thinking on modernization, especially in the wake of growing globalisation and the implied demand for global citizens.

Nowadays anywhere anytime education is made possible. Universities and educational institutions are emerging up with new methodologies and innovative instructional strategies to provide teacher education. The practice of providing education with the help of modern technologies is termed as e-Education or e-Learning. It complements traditional learning and puts the learner in the center of learning instead of the teacher. It is dynamic, operates in real time, empowering, individual and comprehensive, effective and quick. By e-Learning we can provide borderless, timeless, space less and paperless education.

E-Learning

Electronic learning or e-learning is a general term used to refer to computer-enhanced or technology enhanced learning. E-learning is the employment of technology to aid, enhance and enrich learning. It can be as simple as High School students watching a video documentary in class or as complex as an entire University course provided online.

Need for e-learning in teacher education

- To help the learners to manage their own learning.
- To upgrade the knowledge and skills of the learners.
- To increase the emphasis on learner centered and personalised learning.
- To increase responsibility on the part of learners for their own personal development and life long learning.
- To provide educational content from subject experts and also through other ways.
- To provide information in greater depth, when required regardless of location without any loss.
- To combine the possibilities of real and virtual worlds and to decrease their individual disadvantages.
- To make the learners to keep the track of changing scenario and hence to make citizens of global standard

Benefits of E-learning

- **Dynamic:** Latest content available in real time. On-line experts, best sources and quick approaches for learners are available.
- **Operates in real time:** We can get what we need and when we need.
- **Empowering:** By e-Learning the trainees are empowered to gain knowledge, skills, and abilities in a manner that is best suited for their learning style.
- **Individual:** e-learner can select activities from a personal menu of learning opportunities most relevant to his/her background, job and career.
- **Comprehensive:** e-Learning provides learning events from many sources, covering numerous topics and enables the learner to select a favored learning method.
- **Effective:** e-Learning allows the learner to interact with the material for maximum retention of gained knowledge. It is

supported by multi media. It will stimulate the senses and learning through senses will leads to longer retention.

- **Quick:** e-Learning allows the learner to learn at the increased rate. Self-paced e-learning leads to a quicker retention of the material through it's interactivity, allowing the learner to speed through material in which they are already proficient, and

absorb the material with which they are least familiar.

Various 'E's in e-learning

There are various 'e's collectively establishing effective e-Learning environment. They are e-Books, e-Journals, e-Content, e-Magazines, e-Paper, e-Business, e-Pen, e-Notebook, e-Reader, e-Mail, e-Publishing and e-Pedagogy.

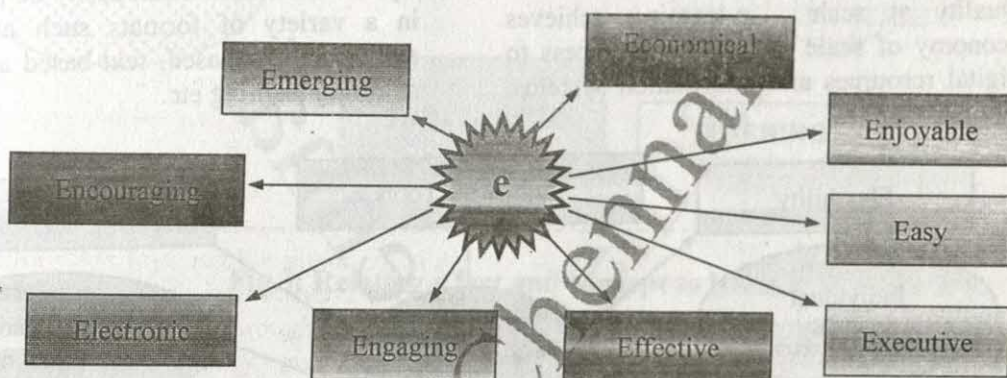


Fig. 1: Thesaurus of E in e-Learning

E-Learning Technologies

E-learning can be encouraged through audio or video-based web-conferencing programs, threaded discussion boards, live chat, blogs, wikis and e-mail. Some of the Synchronous and Asynchronous technologies which are playing vital role in e-Learning are listed below:

- Palm pilots, MP3 Players, web-based teaching materials.
- Hypermedia in general and multimedia CD-ROMs web sites.
- Text chat, computer aided assessment and educational animation simulations.
- Collaborative software to use colors and specific color combinations, to combine images with words and to combine sounds with images.

Using multiple types of media and using layouts that flow with the natural movement of the eye.

Importance of E-learning in Teacher Education

E-learning is important in teacher education because it can improve the quality of learning experience, and extend the reach of every teacher educator. Fig.2 represents various benefits of e-Learning which plays important role in teacher education.

- Individualised learning, Flexible study and personalised learning support.
- Collaborative learning - e-learning offers a wide range of online environments to develop the cognitive and social skills of communicating and collaborating.
- Tools for educators and teacher trainees to innovate - e-learning offers a wide range of design tools to enable educators and teacher trainees to be innovative, creating and sharing ideas, or customising learning resources for their own use
- Virtual learning worlds - teacher trainees can take part in active and creative learning

with others through simulations, role-play, real-world tools and devices, online master classes, or collaboration with other institutions or organisations.

- Online communities- e-Learning can bring teacher trainees, educators, specialist communities, experts, practitioners and interest groups together to share ideas and good practice, contributing to new knowledge and learning
- Quality at scale - e-learning achieves economy of scale through wide access to digital resources and information systems,

combined with quality through shared tools and resources, and common standards of design and innovation.

- Reusability of learning objects in e-Learning- Much effort has been put into the technical reuse of electronically-based teaching materials and in particular creating or re-using Learning Objects.
- Meeting the needs of different learning styles - information can easily be presented in a variety of formats such as visual, audio, activity-based, text-based and brain storming learning etc.

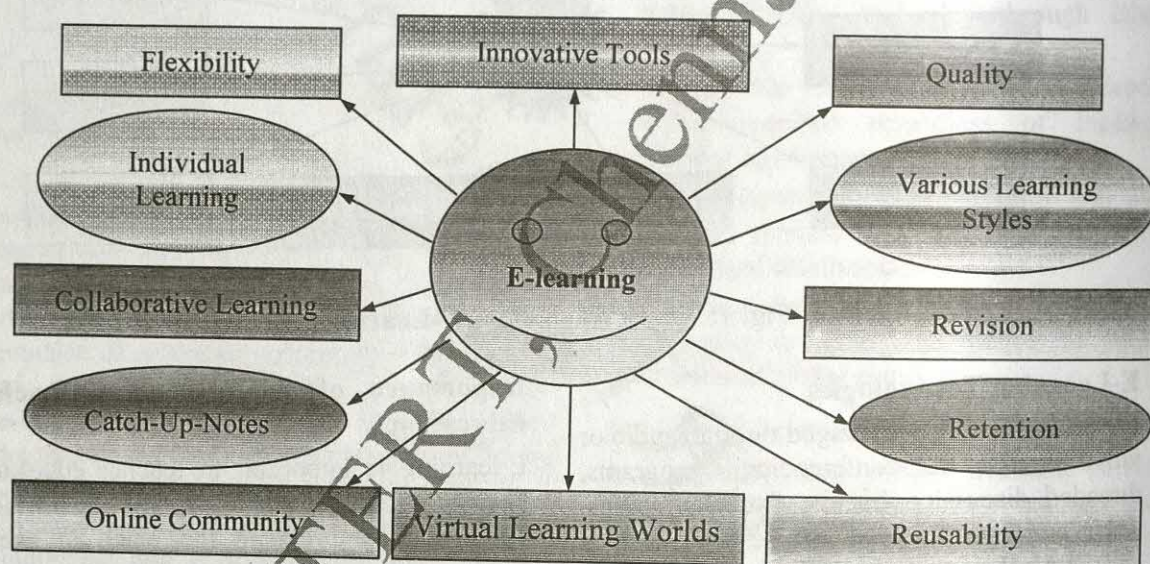


Fig. 2: Various benefits of e-Learning in Teacher education

Pedagogical Approaches in E-Learning

It is clearly possible to apply any specific pedagogical approach to e-learning, however some approaches are more common than others. Two of the most common are those of instructional design and social-constructivist pedagogy. The latter in particular is well afforded by the use of discussion forums, blogs and online collaborative activities.

Perspectives of E-learning

Cognitive Perspective is related to the cognitive processes involved in learning as well as how the brain works.

Emotional Perspective is related to the emotional aspects of learning, like motivation, engagement and fun etc...

Behavioural Perspective is related to the skills and behavioural outcomes of learning process. Role-playing and application to job settings are considered.

Contextual Perspective is related to the environmental and social aspects which can stimulate learning such as interaction with other people, collaborative discovery and the importance of peer support.

Psychology of E-learning

Learning is a concept philosophically evolved, psychologically developed and socially based. First, learning requires attention. For the

learning to be effective, training has to grab that attention and hold it for a long time. In this context we have to consider various psychological aspects of learning.

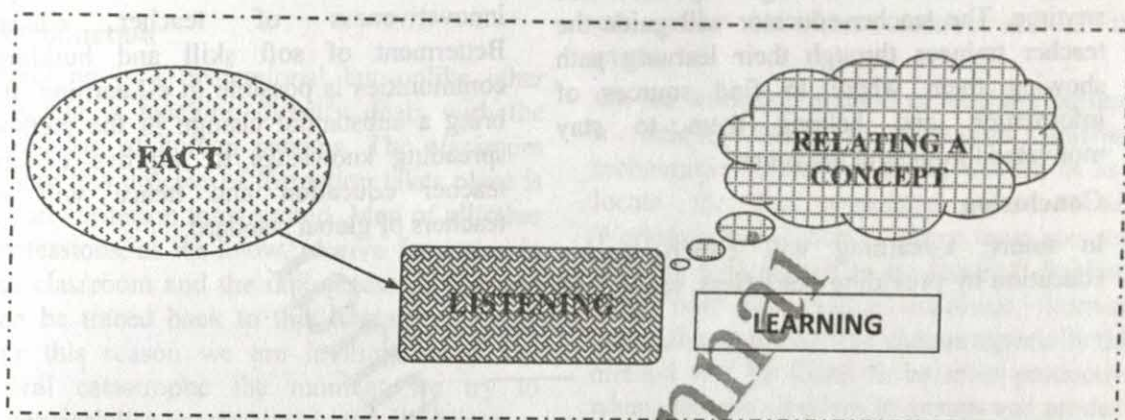


Fig.3: Relating a fact and concept to learn

Listening to a fact

Flour and sugar are mixed with milk to make carbohydrate rich biscuits.

Relating a concept to that fact

Foods that are rich in carbohydrates help the body by supplying energy.

Visualising the two together

In order to get energy often we prefer carbohydrate rich food.

These systems are interrelated and work together to make learning. Fig.3 represents relating a fact and concept to learn. The goal is to enhance learning in each neural system. Information that is designed in a way that moves from one neural system to other creates more effective learning. This is possible by the well designed e-Content.

To Improve Retention

In addition to catering the needs of neural systems, training should also incorporate other elements such as interaction and feedback. e-Learning can incorporate many elements that make learning a new material, a new process or a new program more fun. We can make learning more fun and interesting by providing

effective e-Content. By this we can improve 25-60% more retention of gained knowledge.

Keys to Open Successful E-learning Environment

- **Varying the types of content:** Images, sounds and text work together to build memory in several areas of the brain and result in better retention of the material.
- **Creating interaction to engage attention:** Games, puzzles and manipulation of something on screen creates more interest, which in turn builds better e-Learning.
- **Providing instant feedback:** We can get immediate feedback in e-Learning. The more immediate the feedback, better the learning is, because each step of learning builds upon the previous step. If no feedback is given, then the next step may be building upon an incorrect interpretation.
- **Encouraging interaction with other e-learners and an e-educator:** Chat rooms, discussion boards, instant messaging and e-mail all offer effective interaction for e-learners. It is equivalent to classroom discussion

E-learning in future

In future, traditional classroom-based training initiatives will become disruptive when compared to the freedom, that e-learning brings: access to knowledge anywhere and anytime. The teacher-educator will guide the teacher trainees through their learning path showing them where to find sources of information and helping them to stay motivated throughout the course.

Conclusion

In future, e-learning will enrich teacher education by providing borderless, space less,

timeless and paperless education. It is dynamic, operates in real time, empowering, individual and comprehensive, effective and quick. It will narrow the gap between various facilities. It will enhance the flexibility and innovativeness of teacher education. Betterment of soft skill and building of communities is possible in e-Learning. It will bring a substantial change in the method of spreading knowledge to improve quality in teacher education and hence will make teachers of global standard.

DTERT, Chennai

INTEGRATED TECHNOLOGY IN TEACHING

Mrs. Mary Kanaga Saratha

Principal i/c, CSI College of Education, Pasumalai, Madurai

Introduction

Teaching is a professional but unlike other professions teaching directly deals with the formation of human persons. The classroom where this process of formation takes place is by any criterion most sacred. Men of all other professions, as we know, receive formation in the classroom and the uniqueness of teaching can be traced back to this fundamental role. For this reason we are inviting social and moral catastrophe the moment we try to commercialise our practice in the classroom.

Being a professional, teacher should function as the highest motivating factor for his creative efforts. The skill of an occupation, the specialized education of a profession and the call and commitment of a vocation are all coherently combined together in teaching. This commitment and call of a vocation elevate teaching to a plain much higher than what is ordinarily recognized.

Teaching Strategies

Necessary to elevate teaching in the classroom to a higher-level creativity. Creative classroom practices of all sorts conceived of as parallel to the traditional ways.

Lecture as an essential and unavoidable method of teaching can be raised from the plain of mere telling and explanation.

On the group method of teaching investigates into the possibilities and potentials of group dynamism and its role in teaching learning situations. Group method of teaching is found to be the most interaction-oriented and dynamic of all teaching methods. This is the place where we have the responsibility of learning to the students themselves. Learning is expected to take through most productive interaction and discussion among the members of the particular group. It is ordinarily not possible to convert all learning into exclusive group method type. But enlightened teachers

can make the most creative use of the methods.

On the workshop method of teaching presents a unique treatment classroom teaching techniques. Workshops are conceived of as a locate for the production of materials. Workshop will function where most concrete learning topics need to be handled. Students learn how to produce academic, learning materials. At the college classes especially this method will be found to be most productive when students sit down in groups and produce academic materials of their own for study purposes. The project method of teaching is well known for its inherit dynamism and pragmatic utility. Learning becomes centered on a project. The project, whatever be its nature, generates a whole range of activities and experience fulcrum of learning as envisaged by the pragmatic educationist.

Guiding Principles of Effective Instruction

1. Effective instruction is guided by general pedagogical approaches and specific instructional practices.
2. Elective instruction is tried directly to the success of the learning.
3. Effective instruction occurs when the teacher links sound curriculum development and excellent instructional practice in a successful learning experience.
4. Effective instruction integrates the components of the core curriculum.
5. Effective instruction is generative and dynamic. Ever changing variables affect instructional decision-making.
6. Effective instruction recognizes there in an art as well as a science to teaching. Effective instruction results from a blend of the art and the science of teaching.

7. Effective instruction finds the best expression when educators collaborate to develop implement and refine their professional practices. Instructional practice can be improved through sustained.

8. And systematic attention to professional development. Teachers can improve their own instructional by participating in professional development programmes or working with peers and supervisors.

Teachers should:

- Be caring and positive
- Be prepared on their subject content and instructional practice
- Have high expectations for their students
- Be aware of and sensitive and relationship among teacher, learner and task and
- Provide consistent and constructive feedback to students.

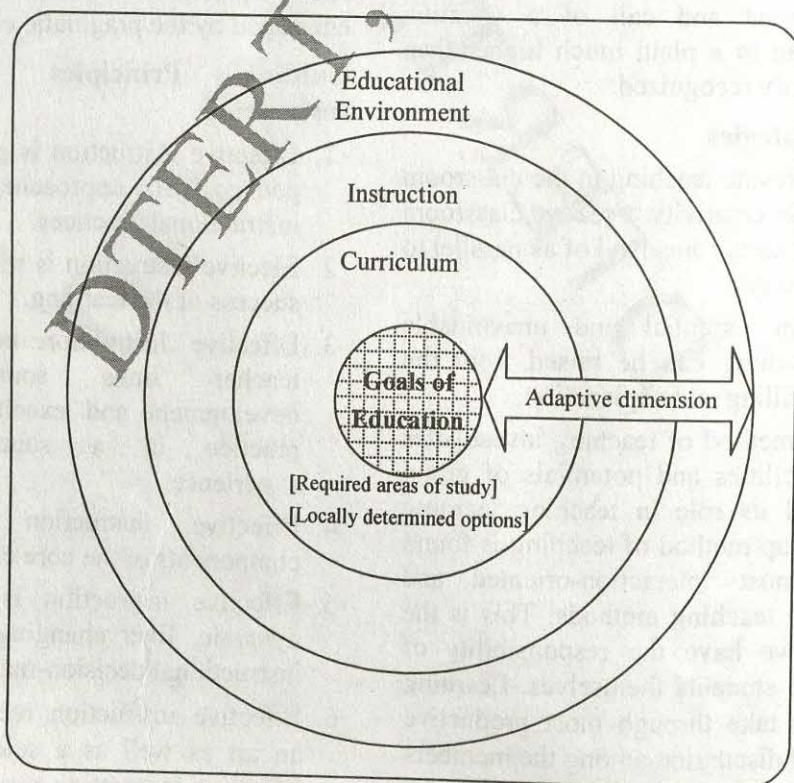
Learners should:

- Be interested in learning about the topic at hand
- See the relevance of the topic at hand
- Feel secure about themselves and within the school environment
- Be involved in decision regarding their own learning
- Be motivated and
- See the relationship between the instructional approach and learning experience

The instructional task should:

- Be specific and of a size that is manageable
- Be achievable given the ability and interest of the student
- Activity involve the student and
- Be challenging and relevant to the student.

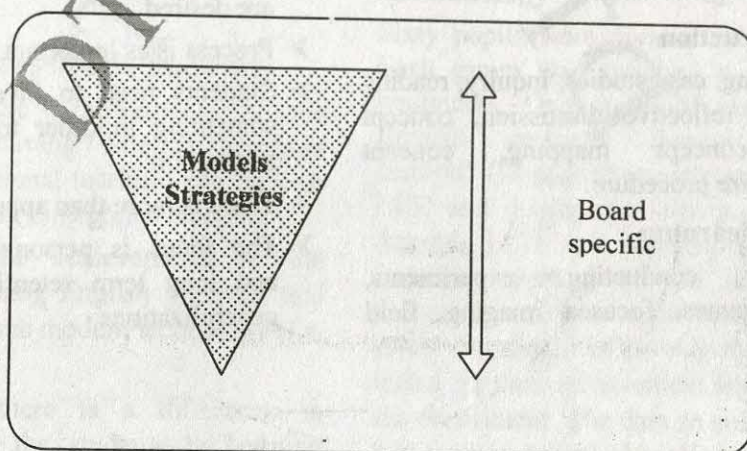
Curriculum and Instruction



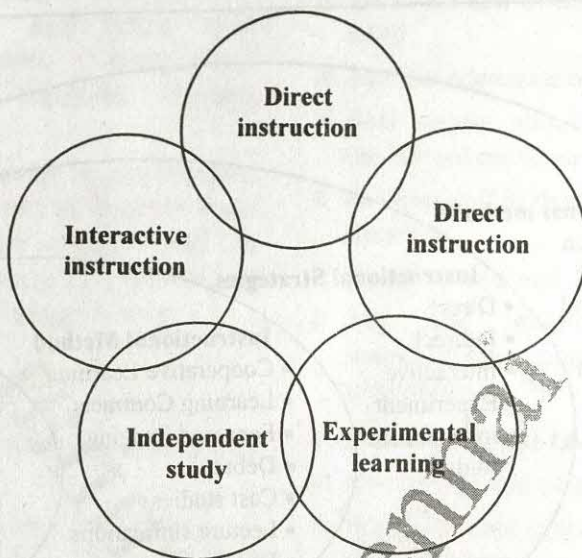
Levels of Approach Instruction



Relationship among instructional models, strategies, methods and skills



Categories of Instructional Strategies



Interactive instruction

Debates, role playing, panels, brainstorming, peer practice, discussion, laboratory groups, cooperative learning group, problem solving, circle of knowledge, tutorial groups, interviewing.

Direct instruction

Structured overview, exploit teaching, lecture, drill and practice, compare and contrast, didactic questions, demonstrations, guides for reading, listening, viewing.

Indirect instruction

Problem solving, case studies, inquiry, reading for meaning, reflective discussion, concept formation, concept mapping, concept attainment, cloze procedure.

Experiential learning

Field trips, conducting experiments, simulations, games, focused imaging, field

observations, role-playing, synoptic, model building, surveys.

Independent study

Essays, computer assisted instruction, reports, learning activity package, correspondence lesson, learning contracts, homework, research projects, assigned questions, learning centres.

Strength and Weakness

- Thinking outcomes are desired.
- Attitudes, values, or interpersonal outcomes are desired
- Process is as important as product
- Students need to investigate or discover something in order to benefit from later instruction
- There is more than appropriate answer
- The focus is personalized understanding and long term retention of concepts or generalizations.

A STUDY ON EFFECTIVENESS OF INTEGRATION OF TECHNOLOGY IN TEACHING ENGLISH GRAMMAR AND SCIENCE

S. Sridevi and K. Parvathi

Lecturers, Excel College of Education, Komarapalayam

The role of technology in education came to be emphasized greatly in the second half of the twentieth century all over the world. Today, technology and education are inseparable. Intrusion of technology and the need of it in the field of education is ever increasing. Several items of equipments and tools presenting in an attractive format curricula in different subjects are now getting into the market. Now, the classroom tools are no longer confined to maps, charts, black board and chalk.

Also technology by itself will not revolutionize the learning process since only a catalyst in the form of a component and dedicated teacher can kindle the curiosity of the student to develop deep into any subject.

Learning with technology is referred to in terms such as cognitive tools and constructivist learning environments. Regardless of the approach media and technology have been introduced into schools because it is believed that they can have positive effects on teaching and learning.

Objectives

The main objectives of this study are

- ✧ To compare the achievements of the students in learning English grammar through conventional teaching and through modern technology integrated teaching.
- ✧ To compare the achievements of the students in learning English grammar and science using same modern technology (*i.e.* LCD).
- ✧ To find that there is a difference in achievement of the students in learning

English grammar through LCD and English grammar through LCD with practical exercises.

Hypothesis

To test the attainability of the above objectives, the following hypothesis were formulated

- ✧ Students learning ability differs in learning English grammar through conventional teaching and LCD teaching.
- ✧ Achievements of students differ in learning English grammar and science through technology, *i.e.* LCD.
- ✧ Achievements of students differ in learning through modern technology and through modern technology with practice.

Sample

For achieving the objectives of this study → A sample of sixty pupils studying in SRET Teacher Training Institute and Excel TTI were selected as sample for the study.

Methodology

Sixty pupils were divided into three groups. Each group was assigned to three different treatments. One group of pupil was taught English grammar through conventional method. The second group was taught through LCD and finally, the third group was taught through LCD and continuous practice like exercises were given for last group. The second group was again tested by teaching science through LCD. All the groups were tested for their achievement level at the end of the experiment. The data so collected were put into various statistical analyses.

Table 1

There is a significant difference in achievement of students' learning English grammar in conventional and LCD

S. No.	Group	N	Mean	SD	t-Test	Level of significance
1.	Experimental	20	12.8	1.88	2.42	0.05
2.	Control	20	11.2	2.30		

It is observed that experimental group scored more mean score than the control group. Since the calculated t-value 2.42 is found to be significant at 0.05 level for $df = 38$. It is finally

concluded that there is significant difference in achievement of students in learning English grammar through conventional teaching and LCD teaching.

Table 2

There is a significant difference in achievement of students' learning English grammar and Science through LCD

S. No.	Group	N	Mean	SD	t-Test	Level of significance
1.	Science	20	13.7	2.13	5.18	0.05
2.	English Grammar	20	12.8	1.88		

After the data analysis, it is found that experimental group in science scored more mean value 13.7 than the experimental group in English grammar. Since the calculated t-value 5.18 is found to be significant at 0.05

level for $df = 38$. It is concluded that there is significant difference in achievement of students in learning English grammar and Science through LCD.

Table 3

There is significant difference in the achievement of students in learning English grammar through LCD and English grammar through LCD with practical exercises

S. No.	Group	N	Mean	SD	t-Test	Level of significance
1.	Experiment with LCD teaching	20	12.8	1.88	3.43	0.05
2.	Experiment with LCD & Practice	20	15.1	2.34		

It is observed that experimental group with practice scored more mean score 15.1 than the Experimental group without practice. Since the calculated t-value 3.43 is found to be significant at 0.05 level for $df = 38$. It is finally

concluded that there is a significant difference in achievement of students in learning English grammar through LCD and English grammar through LCD with practical exercises.

Recommendations

After serious analysis of the collected data it has been found that modern technology plays vital role in teaching also. It is the teacher who should integrate different methods in technology according to the subject they teach.

Conclusion

Quality elementary education depends on the quality of the elementary teacher. It can thus be concluded that producing quality teachers through apt method of teaching will ultimately create quality in elementary education.

DTERT, Chennai

PRIMARY TEACHERS' ATTITUDE TOWARDS TECHNOLOGY

M. Sudurshan¹, K. Ilayaperumal² and R. Diane Joseph³

¹Nehru College of Education, Sedrapet, Pondicherry

²Krishnaswamy College of Education, Kattukuppam, Pondicherry

³St. Anne's College of Education and Research Centre, Kattukuppam, Pondicherry

Technology has played a recent revolution in the educational field. There is integration of technology at all levels of schooling. The instructional system has shifted from teacher centered to technology centered. In this scenario there is a big question that arises "Whether to integrate technology at the elementary level?"

The feasibility of the use of modern technology is immense. However, there is a lack of training, preparedness of teachers, parents and public for these technologies utilization. There is a need to educate teachers to use mass communication in a innovative way, to create a rich classroom for building a better culture in a society (Goel *et al.*, 1997).

Kluever *et al.* (1994) revealed that attitudes towards computer have distinct evaluative and affective component and hence measuring attitudes helps to find whether they invite technology or deny it in at the elementary level. Thus owing to the importance of technology integration in primary education, the present study is conducted to study the primary teachers' attitude towards technology.

Objectives

The objectives of this study were:

- To find out the primary teachers' attitude towards technology.
- To find out the effect of background variables like Gender, Educational qualification and locate on the primary teachers' attitude towards technology.

Method

Technology attitude survey (for Elementary Teachers)

Technology attitude survey was developed and standardized by McFarlane was adapted as a tool. A pilot study was conducted to establish the reliability and it was found that the split half reliability was found to be 0.8976 and hence this tool was retained for this investigation.

Sample

The population was elementary teachers of Puducherry. Fifty teachers were selected from the population.

Variables

The main variable was teachers' technology attitude. The sub-variables constituted Gender, Educational Qualification and Locale.

Procedure

By random sampling method sample was selected and sample was administered with technology attitude survey. Based on the collected data scoring were made. Null hypothesis was framed and t-test was used to test it.

Discussion

The teachers exhibited high positive attitude towards technology. The effect of the background variables on the attitude of the elementary teachers were examined and the results were tabulated as given below:

Table 1

't' Value of Male and Female teachers in technology attitude scale

Male		Female		't' Value
Mean	S.D.	Mean	S.D.	
120.34	9.50	116.70	11.89	2.422

Table 2

't' Value of Rural and Urban teachers in technology attitude scale

Rural		Urban		't' Value
Mean	S.D.	Mean	S.D.	
122.61	7.95	113.95	12.120	2.112

Table 3

't' Value of D.TEd. Without Degree and D.TEd. With Degree in technology attitude scale

D.TEd. Without Degree		D.TEd. With Degree		't' Value
Mean	S.D.	Mean	S.D.	
115.20	11.87	121.46	9.30	3.110

Table 4

't' Value of Private and Government teachers in technology attitude scale

Private		Government		't' Value
Mean	S.D.	Mean	S.D.	
125.24	5.11	111.68	11.12	2.852

Conclusion

The results reveals that there is significant effect on the attitude towards by the

background variables like gender, teaching experience, locale and the type of school.

RE-ENERGIZING LANGUAGE LEARNING IN THE LIGHT OF NCF-2005

G. Anto Boopalarayan

Lecturer, DIET, Manjur, Ramanathapuram Dt.

Language is the most fascinating aspect of human behaviour. Language plays a very important role in the all round development of a child. It shapes the child's world, gives him / her means of expressing himself / herself, contributes to his / her emotional growth, besides academic pursuits and all other aspects of life. It is a medium through which knowledge acquired and disseminated. Language is identity. A child acquires his / her home language, naturally through larger kinship groups, street and neighbourhood and societal environment. Language provides the child a bank of memories and symbols inherited from fellow speakers and created in his/her own lifetime. Children are born with an innate language facility, and research has shown that Indians have a flair for languages. (Domestic help, multilingual beggars, tsunami spoilers, spelling bees, scrabble) They internalise an extremely complex system of language before they come to school. They come armed with 2 or 3 languages of which we do not make use; we do not exploit them.

The objectives of language teaching

One of the major objectives of language teaching is to equip learners with the ability to become literate, read and write with understanding.

Some of the objectives of NCF2005 would include:

- The competence to understand what he/she hears.
- Ability to read with comprehension, and not merely decoding
- Effortless expression
- Coherent writing
- Control over different registers
- Scientific study of language
- Creativity and
- Sensitivity

NCF-2005's Fresh Impetus to Language Education

1. A renewed attempt should be made to implement the three-language formula.
2. Children's mother tongues, including tribal languages should be considered as the best medium of instruction.
3. Proficiency in multiple languages including English should be encouraged in children.
4. Reading should be emphasized throughout the primary classes.

Culture and language are intermingled; and is but natural and inevitable. NCF 2005 advocates an interdisciplinary approach. Language can relate all the subjects, as it is the heart of education; so is the heart of children. Centrality of language, and achieving it would be a milestone in the purposeful journey of a developing nation.

- i) The three-language formula [Home Language / First Language / Regional Language / Mother Tongue,
- ii) Second Language - English,
- iii) Home Language and School / Standard Language] is an attempt to face the challenges and opportunities of the linguistic situation in India.

The primary aim of the formula is to promote multilingualism, which will naturally lead to national harmony.

Language across the curriculum

English in India is a global language in a multilingual country (22 languages recognized by the Constitution, 1652 mother tongues, over 3000 dialects.) multilingual context. (No monolingual state, language continuity, language preservation, language protectionism etc.).

Language education is not confined to the language classroom. A science, social science or mathematics class is ipso facto a language class. Such a policy of languages across the curriculum will foster genuine multilingualism in the school. It is important to view language education as everybody's concern at school and not as a responsibility of the language teacher alone.

Many students who have to switch over to English, having had their earlier education through their mother tongues face barriers of language.. Teachers would be doing them a service by practicing bilingual communication to some extent for the first few weeks.

Teachers should make themselves aware of their students' first language or mother tongue so that in times of difficulty they can explain to the students in a simple and comprehensible language, may be mother tongue. Teachers of other subjects such as History, Economics, Physics, Botany, etc. should also have knowledge of the dialect spoken around their area. Students may be corrected in an unobtrusive manner, not authoritatively. A congenial atmosphere in the classroom should be created even for teaching the mother tongue or the first language. By talking to students outside the classroom on topics other than the text or the school, students will take to the standard language and understand the subtle difference between home language and school / standard language. Language thus learnt will go a long way in helping the students not only with the language but also with other subjects as well. They will also be able to use the language outside the classroom, in the society with confidence without the teacher, thus fulfilling the basic purpose of language.

Therefore, a language across the curriculum approach is required. This removes down the barriers between English and other subjects, and other Indian languages. All learning occurs through language. English does not stand-alone. The aim of English teaching is the creation of multilingual persons who can

enrich all our languages, which has been an abiding national vision.

Language in the Classroom

An input of rich communicational environments is a prerequisite for language learning, whether first or second. Input includes textbooks, learner chosen texts and class libraries allowing for a variety of genres. The language environment of disadvantaged learners needs to be enriched by developing schools into community learning centres. All teachers who teach English should in variously possess proficiency in English.

Story reading (as opposed to teaching stories as texts) can be developed into a classroom. Reading stories out aloud, repeated reading, choral reading, story retelling, and rewriting activities can draw on and build on the existing language proficiency and skills of teachers. Regular story reading triggers the acquisition process in children, and will encourage reading in both the teacher as well as the pupil.

Shared reading of big books with texts and illustrations, can be used for group reading. As the teacher reads, pupils become familiar with the story in spoken (read-out) language and the illustrations: an acquaintance gradually develops with the print code.

Reading cards can be used .the short graded passages of reading cards (beginning with four-sentence stories) allow individual learners to choose their level of difficulty, and progress at their own pace in silent reading, after some initiation by the teacher.

A variety of pre -literacy activities can be undertaken in a **print rich environment**; the classroom must display signs, charts, and notices that organize its work.

Dictation is also now seen as a whole-language activity that requires the child to decode and hold in the mind chunks of text that must be reinforced for writing.

Evaluation in Languages

Language evaluation need not be tied to achievement with respect to particular syllabi, but must be reoriented to the measurement of language proficiency. Ongoing assessment could document a learner's progress through the portfolio mode. National benchmarks for English language proficiency would help greatly in achieving certain basic standards. English is perceived to as window opener to opportunities. A student may be allowed to 'pass without English' if an alternative route for English certification (and therefore instruction) can be provided outside the regular school curriculum. The transfer of skills could be achieved from one language to another. In this context the objective of teaching languages is not simply to make the students learn language skills but to enable them to play their communicative roles effectively and select languages from their linguistic repertoire and within those chosen, select registers and styles, befitting the roles they are playing.

Conclusion

Role of the language teacher is indeed of special significance. In spite of working under highly disadvantaged conditions, the teacher is the only link that can sensitize the children to the rhythm of poetry and the precision of prose. The teacher should be able to appreciate that children come to school with an enormous linguistic and cognitive potential in the case of language, it is particularly true that every normal child is a flaw less speaker of his/her own language. A sensitive teacher would know how best to build bridges between the languages and local dialects that children bring to the school and the languages that are used in the school.

It is only when the teacher is competent enough to create the language atmosphere inside and outside the classroom and committed absolutely to his/her profession that the goals envisaged by NCF 2005 can be achieved.

ADAPTATION OF NCF-2005

T. Vimal Eshwary

M. Ed. Scholar, Dr. S. A. College of Education, Tiruchendur

The National Curriculum Framework was started in 07 December 2005. Textbooks and tests have long been the two words that defined the Indian education system, but now it is doing the utmost to change the perception. The 124 page document, prepared by the National Council for Educational Research and training, emphasizes the words “learning without burden and child centered education”. It includes the cutting down on the number of textbooks, making assessment methods flexible and promoting more inclusive learning.

What Is NCF?

By breaking away from established notions and prevalent teaching practices, the framework has laid ground for making learning a more exciting experience. As NCERT director explains, the NCF is “sensitive” to the needs of children and understands that the ultimate goal of education is to “motivate”. And even its critics agree that this NCF takes a step forward by recognizing the importance of the child in the school education system.



A New Beginning

A fresh look at syllabi is certainly required in many states in the country, where changes in curricula sometimes occur only every 10 years. “Central boards of education revise text books more frequently. States are more conservative and revisions of curriculum happen slowly. The need for change is accepted widely.” Discussions have centered around the relevance of the present education system—there is a feeling among teachers, parents and children that the system is irrelevant.

Educating the Educator

The framework suggests that students should be able to “connect knowledge to life outside school” and “ensure that learning is shifted away from rote methods”. It recommends that teachers should encourage children not just to answer questions but also to frame questions themselves, and “plan lessons so that children are challenged to think and not simply repeat what is told to them.” By stressing on these methods, the framework emphasizes not just the role of the child, but also that of the teacher. Its path-breaking

suggestions notwithstanding, there are questions about the extent to which the framework can be translated into reality. The framework has a section of Teacher Education for Curriculum Renewal, which, among other things, admits that, "Attempts at curricular reform have not been adequately supported by teacher education. The new NCF is made to appear as if it is only meant to reduce the burden of children.

How it works?

Yet, though the framework has taken a positive step by recognizing the importance of teachers, it "could have taken a clearer view and made a series of policy recommendations of the subject." "If education is empowerment, then it cannot talk only of student's empowerment. It should include teachers' empowerment" A teacher will be the one conveying it to students; and, however well a textbook is written, it should have clear "pedagogic methods". "In the present form the NCF 2005 does not take a clear position on the current state of teacher education, the dying cadre of the trained elementary government school teacher and the increasing reliance of many state governments of a fast growing cadre of Para teachers."

The framework should also have made clear the kind of interventions required implementing it fully; In particular, the NCF does not offer suggestions on how experiences and voices excluded from the classroom till now can be brought in. There is cynicism among teachers especially in government schools, and besides there's a considerable amount of divide between teachers and children from the marginalized sections of society.

Reality Bites

The NCF has devoted school and classroom Environment, mentioning that not enough attention is paid to the importance of physical environment for learning. It says

that classrooms are overcrowded and unattractive, despite the fact that child wasn't to be in a colourful, friendly and playful space. The framework suggests ways to make schools buildings and block functionaries should focus on ensuring that at least minimum infrastructural requirements are met. It also mentions that the ideal number of students in a class should be around 30. No curriculum reforms will be meaningful without systemic reforms in the school system. The NCF does not present a clear view on the government's role and has, instead, opted to say what the government wants to hear. More concrete policy changes need to be initiated to implement the suggestions made by NCF, says Madhusudhan. Writing in the social Scientist's issue on Debating Education historian Irfan Habib points out that almost every proposal it (the NCF 2005) makes is only practical.

Call for Clarity

Some of the framework's proposals have evoked despair, and even anger. Two of these, in particular-the glorification of local knowledge, and a proposal to do away with examinations as the chief assessment tools, have come in for severe criticism. The child's community and local environment form the primary context in which learning takes place, and in which knowledge acquires its significance. There is inequity of caste in our system, but liberals resists from admitting it.

The plan to dilute the role of examinations has produce sneers as well. The framework attempts to remind teachers that assessment techniques have to be evolved to recognize children's success, rather than find ways to fail them. The one way, however defective in actual practice, that may still be employed to keep a check on actual content of teaching in schools, is the system of examinations.

NCF-2005 is however, intent on reducing these to mere farcical exercises.

No Verdict Yet

The NCF recognizes that a complex set of factors is necessary for educational reforms- and civil society is a major factor. The way governments act will depend on civil society and the societal pressure on them to perform. When economic reforms are still continuing after 14 years, educational reforms would clearly take much longer, he explains. The document shows the direction at best, it can be a starting point.

Conclusion

The framework's positive attributes, the director points out, include the fact that it - acknowledges the child's privacy and does not impose a straight-jacketed, narrow notion on children. That the new teaching methods will also contribute to stemming the current drop-out rate- as many as 53 percent of the children drop out by the time they reach class eight now. It is the biased nature of the present curriculum against girls and marginalized groups that's partly responsible for making present-day education an alienating experience, he says.

DTERT, Chennai

IMPACT OF ADOPTING NCF 2005 ON TEXT BOOK DEVELOPMENT IN THE STATE OF UTTARAKHAND

C. S. Gwal

Additional Director, SCERT, Uttarakhand, Narendranagar, Tehri Garhwal

The National curriculum framework 2005 is the latest educational document at the national level which shows the recent trends of education. It was prepared by clubbing together major ideas of 21 focus groups on different subject areas in the form of five chapters of NCF 2005 by NCERT New Delhi. The chapter 1 Retrospective bears the five guiding principles while the rest four chapter bear matter on learning and knowledge, areas of curriculum environment of school and classroom and ultimately the system reforms. On the basis of guidelines of NCERT a state core committee was formed for further action. The committee consisted of prominent educationist from all levels and areas of education under the chairmanship of J.C. Pant, Chairman Administrative Reform Commission. Suggestions were invited from the general public through advertisement placed in the local dailies regarding subject matter to be incorporated in the syllabus and text books to make the subject matter relevant and local specific. Sensitization workshops were organized at DIET, BRC, CRC level to sensitize the officials, educationist, social thinkers, coordinators, teachers, students, guardians and the community on NCF 2005.

Adoption of National Curriculum Frame Work – 2005 overall development of children rather than remain text book centric. Students come to school in the morning in brisk mood but leave the school in the evening in a dull mood. Burden of textbooks, textbook centric curriculum boring learning process, imbalance noon meal system all convert the stable mind and stable body of students into dull situations. There happens physiological and mental man power loss through educational institutions. Students like holidays more than school days. Students like to upend more time outside than inside the classroom. Moreover present

examination eats into the very vitals of our students. The Curriculum may be developed in the following means: Reducing the burden in text books, Changing the learning process like ABL and ALM Introducing Yoga, spirituality, Curricular and extra curricular activities and improving the noon meal system in to a balanced.

Uttarakhand is a newly carved state which came into existence on 9th November 2000. There are 2 commissionaires with 13 districts and 95 blocks in the state. The apex body SCERT was established on 17th Jan 2002. The organization aims to give academic support to all the programs for ensuring qualitative elementary and secondary education. There are 15058 primary, 4263 upper primary, 1031 Secondary and 1232 higher secondary schools running under the state government with an estimated strength of 23 lakh students. The state runs 10 DIET's, 3 DRC's, 3 CTE's and 1 IASE for research and teachers training.

National Curriculum Framework 2005 - A Brief

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Adoption of NCF 2005 in the state Uttarakhand

On the basis of guidelines of NCERT a state core committee was formed for further action. The committee consisted of prominent

educationist from all levels and areas of education under the chairmanship of J.C. Pant, Chairman Administrative Reform Commission.

Sensitization workshop of state and district level

Suggestions were invited from the general public through advertisement placed in the local dailies regarding subject matter to be incorporated in the syllabus and text books to make the subject matter relevant and local specific. Sensitization workshops were organized at DIET, BRC, CRC level to sensitize the officials, educationist, social

thinkers, coordinators, teachers, students, guardians and the community on NCF 2005.

Development of literature on NCF 2005

Summary of NCF 2005 "Vidyalaya Bane Anandalaya" has been published by SCERT in the form of a booklet to generate awareness at CRC level in the state. A four page pamphlet has also been prepared for school level. A summary of NCF 2005 has also been made a part of the study material of various pre service and in service teachers training programs. The various publications - Nayee Disha, Adharshila, Sahacharya, of the state carry excerpts of NCF 2005.

Activity	Number		Participants	Venue
	Activities	Attendants		
Core Committee Meeting	1	70	Core committee members	SPO Dehradun
Sensitization Workshops			Teachers, students educationist, social thinkers, education officers, coordinators, guardians etc.	SCERT UA DIET's BRC's
(a) State Level	8	244		
(b) District Level	18	543		
(c) Block Level	95	1683		
Syllabus development Workshop			Teachers, students educationist, social thinkers, education officers, coordinators, guardians etc	SCERT UA DIET's BRC's
(a) State Level	5	150		
(b) District Level	9	450		
(c) Block Level	2	300		
Core Committee Workshop	1	78	State core committee members	SPO Dehradun

Preparation and development of syllabus

The subject core group were formed at state level for preparing syllabus of elementary classes (1st to 8th) according to the NCF 2005. A comparative study of the syllabus and text books of ICSE, CBSE, UP, MP, HP, Delhi Boards, NGOs "Rishi Valley", "Digantar", "Eklavya" and existing syllabus of Uttarakhand board was done by the subject core group. In this sequence workshops were organized for development of syllabus and sensitization of block and district level education officers.

Finalization and the approval of the syllabus

Experts of the SCERT and subject core groups finalized the syllabus on the basis of the feedback received from field trial of syllabus. Finally it was approved with some amendments in the state core committee meeting. The state government has directed the council to write the text book in three phases:

- **First Phase:** Writing and development of text book for classes 1st, 2nd, 3rd and 6th.

- **Second Phase:** Writing and development of text book for classes 4th and 7th.
- **Third Phase:** Writing and development of text book for classes 5th and 8th.

Characteristics of newly developed syllabus

1. Covers Classes from 1st to 8th
2. Proceeds from Local to Global.
3. The syllabus of class 8th correlates with the syllabus of class 9th of NCERT/CBSE.
4. Number of text books has been reduced.
 - Class I: Hindi and Mathematics have been integrated.
 - Class III: Science and Social Science have been integrated in the form of Environmental education.

- Class VI: History and Geography have been integrated in Social Science.

5. In each class all subjects are correlated to each other
6. The syllabus of all the classes are in continuation, from one class to another.

Text book writing and development

- **1st Step:** Subject coordinators were selected for each subject to develop the text books of pre decided(1st, 2nd, 3rd and 6th) classes
- **2nd Step:** Sensitization/visioning and capacity building workshops were organized for text books writers.(School Teachers, NGO workers, experts from DIET's, artists, Computer experts and coordinators)
- **3rd Step:** Text book writing for selected classes:

Activity	Number		Participants	Venue
	Activities	Attendants		
Visioning workshop of writers	2	235	Writers, subject coordinators, critics, artists and guest speakers and NCERT experts etc.	Rishikesh
Text book writing workshop	1	150		Rishikesh
Text book presentation	1	200		Rishikesh
Analysis of Text book	1	95		Rishikesh
Analysis of Text book by Directorate of school education	1	25		Directorate of school education UA, D.Dun

Class	Subjects	No. of text books developed
1st	Hindi and Maths integrated, English and Urdu	3
2nd	Hindi, Maths, English and Urdu	4
3rd	Hindi, Maths, English, Sanskrit Urdu and EVS	6
6th	Hindi, English, Sanskrit Urdu, Science and Social science	6
Total		19

Presentation of text books

The newly developed text books were demonstrated in the form of hard and soft copies to the state core committee.

Assessment of newly developed text books

Necessary amendments were made in these text books on the basis of feedback received from school teachers, subject critics, State Core Committee and experts of NCERT.

Printing and pilot study of the text books

The printed text books are delivered to all the 119 schools of randomly selected CRC's of 9 districts of Uttarakhand.

Development of Assessment form and selection of districts mentors

For the field study of textbooks and to receive appropriate grass root level feedback from the teachers, parents, students, School Management Committee (SMC) and Village Education Committee (VEC) of the selected schools the feedback tools were developed and field mentors were selected to carry out the research studies related to the text book.

Characteristics of newly developed text books

1. The text incorporate day to day experiences from life.
2. The title of the text books are local specific.

Books

Name

Hindi I, II and III

Hanshi-Khushi

Hindi VI

Buransh
(State flower of
Uttarakhand)

English

Learn with Fun

Environmental Edu.

Hamare Aaspaas

3. The following points have been incorporated - dignity of labor, right to information and Yoga.
4. The text books have been written to inculcate National, social, moral and cultural values.
5. The transaction of content is through activities.

6. Pictures and contents are local specific and child friendly.

7. The text books follow a picture text ratio and font size in accordance with age and class level.

8. The text books also aim to generate environmental awareness.

Outcomes

Outcomes of adoption of NCF 2005 are reflected as innovation in teachers training and systemic reforms.

- Examinations for Class V (board exam) have not been conducted in 2006-07 as part of adoption of NCF 2005.
- A G.O. has been issued by state government to enforce the continuous and comprehensive evaluation in elementary classes of the state.
- CBSE board has been adopted for class XI and XII from 2007-08.
- NCF 2005 has been adopted as subject matter of in service and pre service teachers training.

Current Strategy

- Workshops constituting members from academic and subject core groups were organized to develop the strategies for writing text books of class 4th and 7th as per NCF 2005.
- A teacher manual for the text books developed by SCERT is also in progress.
- The revised text books will be delivered to all the elementary schools of Uttarakhand after revision.
- Training packages are also been designed to train teachers to deliver content of text books effectively.

OVERALL DEVELOPMENT OF CHILDREN RATHER THAN REMAIN TEXT BOOK CENTERIC

R. Elangovan

Supervisor (SSA)

Block Resource Centre, Cumbum, Theni District

Students come to school in the morning in brisk mood but leave the school in the evening in a dull mood. Burden of textbooks, textbook centric curriculum boring learning process, imbalance noon meal system all convert the stable mind and stable body of students into dull situations. There happens physiological and mental man power loss through educational institutions. Students like holidays more than school days. Students like to upend more time outside than inside the classroom. Moreover present escamination eats into the very vitals of our students. Swami Vivekananda said "Education is the manifestation of perfection already in man". But we cannot manifest that perfection from fatigue mind and body. The strategies to improve vitality and cognition of student should be adopted in school. So the curriculum should rather remain textbook centric.

The Curriculum may be developed in the following means.

1. Reducing the burden in text books
2. Changing the learning process like ABL and ALM.
3. Introducing Yoga, spirituality, Curricular and extra curricular activities.
4. Improving the noon meal system in to a balanced one.

Reducing the burden of text books

Increase of text books may be helpful only to those who choose higher education. They are not useful to everyday life as the contents are forgotten after examination. So the burden of text books should be reduced considerably.

Changing the learning process

Activity Based learning (ABL) introduced this year in the Primary Education and Active learning methodology (ALM) to be introduced

next year in the upper Primary Education are the good steps for self learning.

Overall development of Children

Equal importance should be given to practical Yoga and dietetics with special regard to Natural dietetics as preventive medicine and to improve vital force and cognition.

Yoga

Yoga constitutes of eight steps. Among them Yogasana, Pranayama, Meditation are applicable in Schools.

Pranayama

The breathing Exercises brings oxygen and energy to every cell, exercises the organism by burning up waste products, expells the toxins, while relaxation guards against neurasthenia and insomnia.

Suryanamaskaram

Tones up the digestive system and getsnides of constipation and dyspepsia. Suryanamaskaram tones up the nervous system also and so memory imposed. It should be performed in the early morning. Invisible ultra violet rays from the sun. mixes with oxygen and enters into the lungs. Blood privious at a faster rate. Body and mind become fresh.

Yogasana

Stretching and bending moments of body save energy inside the body and convert the energy for cognitive development. This physical activity massages inter organs to function perfectly.

Spirituality

Spirituality and Yoga are interconnected subjects. So spirituality may be introduced as a repeat subject.

Cocurricular and Extracurricular

Activities should be included in the main curricular. Sports and games NCC, NSS, National green crops, scout, Junior red cross, Student parliament, Science forum, Debates cultural programmes, all these activities should be included in the main curricular.

Improving Noon meal System

To day many students eat their breakfast without hungry due to constipation developed from their food habits. They donot like vegetables, the libre rich foods which are essential for peristaltic moment of intestines. They like only fast foods, artificially coloured snacks, bakery maida products which are poor in nutritive values and produce diseases to erne these diseases enormous money is wasted

in gerit and private hospitals. A master planning and execution of the noon meals scheme will be the solution quality foods prepared from fibrerich grains like Kambu, Ragi, Wheat, Aval can be supplemented with rice which in poor in nutritive value various processes can be developed to safe guard the nutritive values in these food stuffs in schools through. Girls' education scheme of SSA.

Staff

All teachers classified into different groups according to their interest and ability irrespective of their academic qualifications. They are trained **effectively** through Yoga and by natural diet system. They are trained physically and mentally to develop dedication for teachings.

SCHOOL TIME TABLE

School Hours 6.00 a.m. to 6.00 p.m. (12 hours)
(Indoor and Outdoor)

06.00 a.m. - 08.00 a.m.	- Practical Yogasana and Breathing Exercises
08.00 a.m. - 09.00 a.m.	- Breakfast - Fully balanced nutritive food supplied by School
09.00 a.m. - 12.00 noon	- Innovative Teaching including spiritual Classes and Library
12.00 noon - 01.00 p.m.	- Meditation/ Yogic Relaxation practice.
01.00 p.m. - 02.00 p.m.	- Noon meals partly natural diets prepared by students.
02.00 p.m. - 03.00 p.m.	- Cocurricular activities like Music, Dance, Debates, Student Parliament etc.
03.00 p.m. - 04.00 p.m.	- Teaching/ Library
04.00 p.m. - 04.30 p.m.	- Refreshments
04.30 p.m. - 06.00 p.m.	- Outdoor - Extra Curricular Activities.

IMPACT OF NCF-2005 ON GUIDANCE AND COUNSELING SERVICES IN THE STATE OF UTTARAKHAND

Tina Mohan

Lecturer, SCERT, Uttarakhand

Introduction

Uttarakhand is a newly carved state which came into existence on 9th November 2000. There are two commissionaires and 13 districts, and 95 blocks in the state of Uttarakhand.

The state's most prestigious academic institution came into existence in the form of the

State Council of Educational research and Training (SCERT) at Narendra-Nagar,

Tehri Garhwal on 17 January 2002, SCERT aims to strengthen school education in

Uttarakhand and make it easily accessible and qualitative.

Guidance and Counselling services- guidelines according to NCF-2005

- NCF-2005 Implications for guidance and Counselling in line with previous policy documents, NCF-2005 lays emphasis on
- Bringing all children to school (universalization of elementary education)
- Retaining children in school
- Improving quality to enable children experience dignity and confidence to learn and achieve success in school
- Address inequalities due to gender, caste religion or disabilities and bring plurality in textbooks.
- Providing for overall development rather than remaining textbook centric.

Adoption of NCF-2005 in Guidance and Counselling services

Guidance services in our state are being planned and implemented by the Guidance and Counselling department functioning under SCERT. The department seeks to plan, organize, coordinate and monitor guidance activities in the state, organize career teachers training programme, provide consultancy, and

field service, collect, produce and dissipate career information and guidance material etc.

In order to initiate and strengthen guidance services which continue to struggle for survival due to lack of trained personnel, funds and leadership, the following has been done.

Sensitization

Survey: A survey has been conducted to establish the need of Guidance and Counselling in the state and find out the orientation of senior officials and academicians towards Guidance and Counselling and to establish administrative support.

Orientation on need for 'Guidance and Counselling:

A soft copy has also been prepared in Hindi and in English having details of the need of Guidance and Counselling, its importance, area, present status, future action, bottlenecks etc. The presentation is run at various gatherings and training programmes to enlighten professionals and the community at large about Guidance and Counselling.

Workshop on Need identification: A state level workshop with participants from all levels of school education namely DIETS, DRC, BRC, schools was conducted with the objective of initiating Guidance and Counselling services in the right direction. A common platform was thereby provided to the participants to plan guidance activities after profiling the state.

Conduct extension activities: Visits to schools have been planned with details of activities to be performed.

Textbook development: Textbook development has been undertaken by SCERT and the department of Guidance and Counselling has been actively involved in the

same to develop books, which are in accordance with the following:

- Developmental needs of the children.
- Designed to include exploratory activities.
- In keeping with the age and mental level of the child.
- The presentation style is child friendly.
- The basic tenets of psychology are followed.
- The Assessment of the books is being done with psychological backing.

Training Programs: To orient teachers, headmasters and principals, training programs have been reviewed and revised such that modules on Guidance and Counselling now form a part of most training packages.

Outcomes

The outcomes of Guidance and Counselling are reflected in the following:

- Reduction in curriculum load and making learning joyful.
- Conducting workshops in the area of Guidance and Counselling.
- Guidance and Counselling features as an important area of concern in meetings with DIETS, DRCs and BRCs.
- Establishment of Psychology lab is in process.
- Integration of Guidance and Counselling practices in teachers training.

- Master Trainers are being developed at NCERT New Delhi and RIE Ajmer in the field of Guidance and Counselling.
- Nominations for training in early child care have also been sent in to support the programme, Diploma in Special Education through distance education is being run in collaboration with Madhya Pradesh University to cater to the needs of students with special needs by developing master trainers for the same.

Current Strategy

An action plan has been prepared for students at the elementary level with the aim to:

- ✧ Identify and meet the needs of children from diverse backgrounds.
- ✧ Design exploratory activities for building positive attitudes and perceptions towards self and the world of work.
- ✧ Help children with difficulties in learning basic skills of reading, writing and numbers.
- ✧ Behavioural problems and other social emotional difficulties, disabilities (physical and mental) and from disadvantaged backgrounds.
- ✧ Counsel students likely to drop out of school and ask them to reconsider their idea and to resume studies.

CORRELATION BETWEEN ATTITUDE OF TRAINEE TEACHERS TOWARDS TEACHING PROFESSION AND THEIR INTERNAL AND EXTERNAL ACHIEVEMENT

Dr. A. Subramanian and V. Usha Rani

Lecturers, DIET, Krishnagiri

Introduction

Attitude has been defined in many different ways over the years. Attitude is an arrangement of mental process, a mental set, an internal disposition or the way certain mental process are organized in a person to make him ready to act in a particular way. Attitudes are acquired characteristics in an individual, they are neither constant nor fixed. Some of our attitudes are the result of personal experience while some of others are due to the interaction of personality. They also differ from individual to individual, group to group and culture to culture. An attitude is a tendency of an individual to favour or not to favour some type of situation. In general an attitude is a tendency towards any psychological object or situation. From which people can differ with respect to positive or negative effect. An individual who has positive effect or feeling associated with some Psychological object, is said to have a favorable attitude and who has associated negative effect or feeling would be said to have an unfavourable attitude.

Need for the study

The success or failure of any system of education depends on the quality of teachers who are the center of the educational process. Interest in teaching is one of the major components, which determine the quality of teaching. Unless a teacher cannot develop a favorable attitude towards his profession. The attitude towards teaching profession cannot be easily ignored. There is need to establish empirically the relationship between attitude of the trainee teachers towards their profession and the effectiveness in their Achievement. Hence

the investigators selected the problem as, *"Correlation between attitude of the trainee teachers towards teaching profession and their achievements both internal and External Examination"*.

Objectives of the study

The major objective of the study is to find out whether there is any significant correlation between the attitude of Trainee teachers and their achievement of internal and external Examinations. The other objectives are:

- To find out the attitude level of trainee teachers towards teaching profession,
- To find out the significant difference on the attitude of the trainee teachers towards teaching profession with respect to sex, and their main subject in standard XII.

Hypotheses of the Study

1. There is no significant correlation between attitude of trainees towards teaching profession and their internal, and external achievements.
2. There is no significant difference of attitude between sex and main subject of trainee teachers towards teaching profession.

Methodology

The present study is survey type it is indented to findout the correlation between the attitude of trainee teachers towards teaching profession and their achievement.

Sample

Purposive Sampling technique was adopted, in the study, to select the sample. The sample consists of 47 D.T.Ed trainee teachers (24 boys and 23 Girls) from District Institute of Education and Training, Krishnagiri.

Tool used for the study

In the present study the investigators used the following tools:

- The teacher's attitude inventory developed by S.P. Ahluwalia.
- The Investigator prepared proforma and used to collect the secondary data such as the internal and external achievement scores and the personal data of the Trainee teachers.

Collection of Data

The tool was administered to the sample (47 trainee teachers). The investigators asked the subjects to go through all the items carefully

and put a tick mark in the attitude scale, under appropriate place. After collecting the filled in questionnaire the investigator scored systematically.

Statistical techniques used

Correlation coefficient was used to find out the relationship among the variables. And 't' test was used to find out the significant difference between two variables.

Data Analysis

On the basis of related literature and the theories, hypotheses were formulated and verified by using 't' test and correlation coefficient.

Table-1

The level of attitude among trainee teachers towards teaching profession

Category	Number	Mean	SD	't' Value		Remarks
				Cal	Tab	
Male	24	75.99	13.92	0.83	2.021	Not significant at 0.05 level
Female	23	78.61	6.01			
Science	23	79.13	11.69	0.69	2.042	Not significant at 0.05 level
Arts	11	76.19	11.53			
Arts	11	76.19	11.53	0.30	2.074	Not significant at 0.05 level
Vocational	13	74.90	9.24			
Science	23	79.13	11.69	1.12	2.024	Not significant at 0.05 level
Vocational	13	74.90	9.24			

The above table (1) reveals that the calculated 't' values are lesser than the table values. There are no significant difference between sex and groups of trainee teachers towards

teaching profession. Hence the Null hypotheses are accepted. The trainee teachers have positive attitude towards teaching profession.

Table-2

**Significant Correlation among the Trainee Teachers between Attitude Scores
and External and Internal Assessment Scores**

Category	Number	'r' value	
		For External Assessment	For Internal Assessment
Total	47	0.0798	0.0246
Male	24	-0.0253	-0.0143
Female	23	0.4113	0.0900
Science	23	0.2358	-0.1304
Arts	11	0.1074	0.2122
Vocational	13	0.4575	0.3005

The above table shows that the 'r' values of Trainee teachers' external assessment scores are positively correlated with the Attitude scores. In the case of male Trainee teachers and the Vocational Group teachers trainees are having negative correlation between Attitude scores and external assessment Scores. But female trainee teachers and Science and Arts group trainee teachers are having positive correlation between Attitude scores and external exam scores.

The attitude scores and Achievement External Scores of trainee teachers are positively correlated. But male trainees and science group trainees have negative correlation between their attitude scores and internal achievement scores.

In the case of Arts and Vocational group Teachers trainees are having positive correlation with their attitude scores and internal assessment scores.

The major findings of the study are:

1. The trainee teachers have positive Attitude towards teaching profession.
2. There is no significant difference between trainee teachers with respect of their sex and major subjects.
3. There is a positive correlation between attitude of trainee teachers, towards teaching profession and their internal and external achievement.

Conclusion

The Trainee teachers of DIET Krishnagiri are having positive attitude towards teaching profession. From the Data Analysis it is inferred that the attitude towards teaching profession have an influence in their internal and external achievement. So the interest and the Attitude towards teaching profession are important factors to be considered in the time of selection for the teacher Training Course.

SARVA SHIKSHA ABHIYAN - INNOVATIVE INTERVENTIONS

S. Kulasekara Vadivoo

Scholar, Dr. Sivanthi Adithanar College of Education, Trichendhur

Introduction

Sarva Shiksha Abhiyan, a flagship programme of Government of India for the promotion of Universalisation of Elementary Education, has several features that seek to improve the quality of elementary education. The physical spaces of schools can be transformed into learning spaces only if certain basic provisioning is ensured. This provisioning includes, inter alia, an adequate number of teachers in schools, facilities for training of teachers, structures to provide regular on site academic support, grants to facilities development of teaching learning material to aid classroom instruction, textbooks for children from special focus groups etc.

Achievements of SSA

1. The programme places great emphasis on preparing the teachers for teaching, by building their capacity through a series of training programmes. The SSA provides for regular 20 day in service training for every teacher every year, along with facilities for 30 day training for newly recruited teachers and 60 day training for teachers that have not received pre service training. In 2006-07, about 29.5 lakh teachers underwent the annual in service training. NCERT has prepared guidelines for in service teacher training under SSA, called 'The Reflective Teacher' that advocates an optimum training duration of about 10 days per year.
2. Classroom transaction can be meaningful only with an optimum Pupil Teacher Ratio. Nearly 7 lakh teachers have been appointed under SSA so far.
3. Sarva Shiksha Abhiyan also provides for grants to schools and teachers for developing local context specific, teaching learning materials that have the potential to improve pedagogical processes in the classroom.
4. The SSA also addresses other systemic issues of physical infrastructure and incentives in the form of free textbooks for all children belonging to the SC and ST categories and for all girls. Free textbooks have been distributed to core children in 2006-07. Emphasis is being laid on timeliness of distribution of textbooks to eligible children.
5. Centralized academic resources institutions in the form of about 6700 Block Resource Centres and about 66000 Cluster Resource Centres have been established across the country to help teachers' performance by providing them professional support.
6. State District and Block Level Resource Groups have been set up and participation of teachers in these groups is increasingly becoming evident. This has helped produce better textbooks, Teaching Learning Materials and training modules.
7. Several States are undertaking successful quality improvement initiatives like the Rs. 3 Learning Guarantee Programme in Maharashtra that has enabled more than eight lakh children get remedial support for satisfactory learning.
8. SSA also supports remedial teaching of children and nearly 34 lakh children were covered under this in 2006-07.
9. The National Curriculum Framework (NCF) 2005, developed by NCERT, endeavors to reduce the curriculum load and make learning more enjoyable for children. NCERT has prepared a three-phased programme for the development of textbooks from 2006-07 till 2008-09.
10. Several research studies under SSA are also underway to gather data and trends in

teacher absenteeism, students' attendance, 'time on task' by students and teachers, professional competence and deployment of Para teachers, etc.

11. Technical and academic support is available to States through NCERT and the technical support group for SSA. The NCERT has designed a sourcebook for pupil assessment and a set of in-service teacher training guidelines for SSA.

Innovative interventions under SSA

I. Learning programmes

Children's language improvement programme (CLIP)

It was started in Andhra Pradesh in 2005-06. Accelerates learning programme for enhancement of achievement levels in language and mathematics, strengthening school library with children's literature. Grading of classrooms and schools on the basis of children's performance. Impact of assessment in 2006 showed positive trends.

Integrated Learning Improvement Programme (ILIP)

It Covers classes 1-4. The Operational in 4903 schools in 20 districts covering 12 40,000 children. The programme focuses on quality education at the lower primary level and on improving teaching learning process. ILIP involves changes in classroom culture, learning and mastery of competencies, use of work books and teaching learning materials, continuous and comprehensive evaluation, systematic documentation of children's profile, tracking behavioral changes and academic achievement, fortnightly CRC meetings etc.

3R'S Guarantee Programme

It was started in Maharashtra in 2004-05. Effort to provide quick remedial lessons to academically weak children. To ensure that not a single child progressing class 1 to class 2 lacked reading, writing and arithmetic competencies. To ensure that weakness evident among children of classes 2 to 7 would

be removed through intensive remedial teaching. Three hours of extra teaching everyday was provided to identify children. Third party evaluation in May 2005 showed that more than 82 percent of the children were able to read, write and perform simple arithmetic operations.

II. Computer Aided Education

Computer Aided Learning, Andhra Pradesh

This was started in mid 2004 in collaboration with Azim Premji Foundation. At present, CAL covers about 3.5 lakh children in 23 districts through 1702 centers. These centers cover 3575 schools and about 7500 teachers. CDs containing material related to teaching Telugu, English, Maths, Science and Social Science for classes 1 to 8 were developed and supplied. There are 42 CDs in Telugu and 17 CDs in Urdu, mapped class wise and subject wise.

Caltoonz: a computer aided learning project of Delhi

The project uses animation and multimedia and in preparing remedial content. It makes learning fun for children. The purpose of the project is to makeup prior deficiencies in the teaching learning process at the entry level into class 6, through a multimedia foundation course containing the curriculum of class 1 to 5. The content covers all topics prescribed by SCERT/ NCERT/CBSE. The programme covers 200 schools.

Computer assisted learning centers in Karnataka

It covers upper primary schools with enrolment of 150 to 250 children. Involves provisions of 2 to 3 computers per school, training of teachers and development of appropriate content or CDs. The plan is to provide computer-assisted learning to about 100,000 children in convergence with other programmes of the central and state governments.

III. Workbooks, Primers and Learning Enrichment

Multilingual approach for education of tribal children, Andhra Pradesh

The purpose is to attract and retain tribal children in schools. The key innovation is the provision of instruction in tribal dialects and publishing language text books in different tribal dialects. The dialects taken up are Savara, Konda, Koya, Kuvi, Adivasi Oriya, Banjara, Kolami and Gondi. SSA has brought out sets of 8 language textbooks in the 8 dialects listed above. The curriculum was build around tribal culture and way of life. Teaching in the tribal dialect is gradually replaced by instruction in telugu so that by class 6, children are comfortable in telugu. The project was taken up 10 schools for each tribal dialect and number of the schools is being increased by 10 every year.

YUVA: hand book for teachers in the school adolescent education programme, Delhi

YUVA covers class 6 to 12. It seeks to sensitize adolescents to issue that confront them as they grow up. The programme takes a life skills approach, after identifying age specific information and awareness needs. Life skills are a set of abilities needed for adaptive and positive behavior, to enable children deal with the challenges of every day living. The skills taught through this programme are social skills, thinking and critical skills and negotiation skills.

Accelerated reading programme in Karnataka

It was implemented in collaboration with Akshara Foundation,. Karnataka. It was implemented in 131 schools in Bangalore for enhancing children's reading achievement levels. The foundation has 39 community libraries around Bangalore and 112 mobiles ones covering about 8700 children.

Preparation of workbooks in mathematics and science, class 4 to 8 Kerala

Workbook contents are aligned with those of textbooks. Workbooks have problems, puzzles and activities drawn from local contexts and day-to day life. These workbooks reinforce the learning of science and mathematics.

IV. Book Fairs and Libraries

Books fairs in Madhya Pradesh

The purpose is to promote a book reading culture. By 2005, Libraries were set up in 16000 schools through convergence with various schemes. Book fairs were started at district level to give readers the option of selecting the books they wanted for their libraries.

Active libraries, Uttar Pradesh

12,015 Libraries has been established after the participation of Village Education Committee members and teachers in book exhibitions organized by the National book trust. A teacher-training module for an active library was developed for teacher training in 2005-06.

V. External pupil Assessment / School Monitoring Systems:

Assam

Assam runs innovative programmes like Bidyajyoti and Naba Padakshepa Schools that keep track of children's learning process in a systematic manner and extend remedial support to slow learners.

Karnataka

Karnataka's Trimester system of learners, evaluation was introduced in 60,000 schools of the State with an aim to make learning more meaningful, remove fear psychosis about examination system, remove the habit of memory testing and also evaluate the child both in scholastic and non-scholastic areas in a child friendly manner.

Gujarat

Gujarat has undertaken a series (four till now) of studies on Learning Achievement of children in collaboration with Bhavnagar University and Saurashtra University to construct the Gujarat Achievement Profile.

Orissa

Orissa has initiated Learners' Achievement Tracking system (LATS) to assess the learning achievement of students regularly.

Uttaranchal

'School performance Monitoring System in Uttaranchal is a state wide initiative to grade schools as per their infrastructure, learning

practices including learner's evaluation and learning achievement.

Conclusion

SSA is the broadest ever educational emergence in the history of India. The Government of India envisaged this special programme in view of the constitutional guarantee of education to all. The SSA programme is being implemented with zeal and enthusiasm in all States and Union territories of India. SSA is being implemented in partnership with state government to give the entire country and address the needs of 192 million children in 1.1 Million habitations.



Computer Type Set:

S. Jesudoss, B.Com., BLIS
13, Malar Salai
Annamalai Nagar
Tiruchirappalli - 620 018
Cell: 9952205541

